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# Deaths: Preliminary Data for 2009

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## Abstract

Objectives—This report presents preliminary U.S. data on deaths, death rates, life expectancy, leading causes of death, and infant mortality for 2009 by selected characteristics such as age, sex, race, and Hispanic origin.

Methods—Data in this report are based on death records comprising more than 96 percent of the demographic and medical files for all deaths in the United States in 2009. The records are weighted to independent control counts for 2009. Comparisons are made with 2008 preliminary data.

Results—The age-adjusted death rate decreased from 758.7 deaths per 100,000 population in 2008 to 741.0 deaths per 100,000 population in 2009. From 2008 to 2009 age-adjusted death rates decreased significantly for 10 of the 15 leading causes of death: Diseases of heart, Malignant neoplasms, Chronic lower respiratory diseases, Cerebrovascular diseases, Accidents (unintentional injuries), Alzheimer's disease, Diabetes mellitus, Influenza and pneumonia, Septicemia, and Assault (homicide). Life expectancy increased by 0.2 year from 78.0 years in 2008 to 78.2 in 2009.

Keywords: death rates, life expectancy, vital statistics, preliminary

## Introduction

This report presents preliminary mortality data for the United States based on vital records for a substantial proportion of deaths occurring in 2009. Statistics in preliminary reports are generally considered reliable; past analyses reveal that most statistics shown in preliminary reports for 1995–2007 were confirmed by the final statistics for each of those years (1-13).

## Data Sources and Methods

Preliminary data in this report are based on records of deaths that occurred in calendar year 2009, which were received from state vital statistics offices and processed by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) as of November 5, 2010. Estimates of the level of completeness of preliminary data for each state are shown in Table I (see "Technical Notes"). Detailed information on the nature, sources, and qualifications of the preliminary data are given in ''Technical Notes.'' The preliminary data for 2009 for Georgia were incomplete, therefore additional review of the data was included to insure the 2009 estimates for the United States were accurate.

Each state vital statistics office reported to NCHS the number of deaths registered and processed for calendar year 2009. Those state counts were used as independent control counts for NCHS' 2009 preliminary national mortality file. A comparison of a) the number of 2009 death records received from the states for processing by NCHS with b) the state's independent control counts of the number of deaths in 2009 indicates that demographic information for the United States was available for an estimated 97 percent of infant deaths (under age 1 year) and 99 percent of deaths of persons aged 1 year and over occurring in calendar year 2009 (see Table I in ''Technical Notes''). Medical (or cause-of-death) information was processed separately and available for an estimated 94 percent of infant deaths and 97 percent of deaths of persons aged 1 year and over in 2009.

To produce the preliminary estimates shown in this report, 2009 records were weighted using 2009 state-specific, independent control counts of infant deaths and deaths of those aged 1 year and over received in state vital statistics offices. Two separate sets of weights were applied to the death records—one set for demographic information and another for medical information. This results in inconsistencies between demographic data from the mortality demographic tables and the medical tables showing causes of death (see ''Nature and sources of data'' in ''Technical Notes''). Preliminary estimates are subject to sampling variation as well as random variation.

Cause-of-death information is not always available when preliminary data are sent to NCHS, but is available later for final data processing. As a result, estimates of cause of death based on preliminary mortality data may differ from statistics developed from the final mortality data (see Tables II and III in ''Technical Notes''). Such differences may affect certain causes of death where the cause is pending investigation, such as for Assault (homicide), Intentional self-harm (suicide), Accidents (unintentional injuries), Drug-induced deaths, and Sudden infant death syndrome (SIDS); see ''Nonsampling error'' in ''Technical Notes.''

This preliminary report includes national and state estimates of total deaths and death rates, as well as statistics on life expectancy, infant mortality, and causes of death. Data are shown for the following race and ethnic groups: white, non-Hispanic white, black, non-Hispanic black, American Indian or Alaska Native (AIAN), Asian or Pacific Islander (API), and Hispanic populations. Tabulations by race and ethnic

group are based on the race and ethnic group reported for the decedent. Race and Hispanic origin are reported as separate items on the death certificate. Death rates for AIAN, API, and, to a lesser extent, Hispanic populations are known to be too low because of reporting problems (see ''Race and Hispanic origin'' in ''Technical Notes'').

Changes in death rates from 2008 to 2009 were tested for statistical significance. Differences in death rates across demographic groups (but occurring in 2009 only) were also tested for statistical significance. Unless otherwise specified, reported differences in death rates are statistically significant.

Age-adjusted death rates are better indicators than crude death rates for showing changes in the risk of death over time when the age distribution of the population is changing, and for comparing the mortality of population subgroups that have different age compositions. All age-adjusted death rates are standardized to the year 2000 population (see ''Computing rates and percentages'' in ''Technical Notes'').

Two measures of infant mortality are shown: the infant death rate and the infant mortality rate (see ''Infant mortality'' in "Technical Notes''). These measures typically are similar, although they can differ because they have different denominators. The denominator of the 2009 infant death rate is the estimated population under age 1 year on the reference date of July 1, 2009 (14). This estimated population includes a combination of infants born in 2008 who had not reached their first birthday by July 1, 2009, and infants born in 2009 before July 1. In contrast, the denominator of the 2009 infant mortality rate is all live births occurring in 2009. The infant mortality rate is a better indicator of the risk of dying during the first year of life than the infant death rate.

This report includes data for 30 states and the District of Columbia—Arkansas, California, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Michigan, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, and Wyoming—that had implemented the 2003 revision of the U.S. Standard Certificate of Death by 2009, and for the remaining 20 states that collected and reported death data in 2009 based on the 1989 revision of the U.S. Standard Certificate of Death. The 2003 revision is described in detail elsewhere (15, 16). In this report, revised data are combined with unrevised but comparable data. More details on procedures used to combine revised with unrevised data on race are given in ''Technical Notes.''

Because the 2000 U.S. Census allowed for selection of multiple races, death certificate data by race (i.e., the numerators for death rates) are not wholly compatible with the population data collected in this census. Data from the census are necessary to produce denominators for computing death rates.

Multiple-race data were collected in 2009 by the 30 states and the District of Columbia that used the 2003 revision of the U.S. Standard Certificate of Death in a manner that is consistent with the population data collected in the 2000 census. Four additional states — Hawaii, Maine, Minnesota and Wisconsin — that used the 1989 revision of the U.S. Standard Certificate of Death also reported multiple-race data. The remaining 16 states did not collect multiple-race data in 2009. In order to produce national death rates for 2008 and 2009 for this report, multiple-race data from death certificates were ''bridged'' to be consistent with the 1977 Office of Management and Budget (OMB) single-race categories (17); that is, the multiple-race categories were bridged back to single-race categories. Also, data for Asian persons and Native Hawaiians or Other Pacific Islanders (NHOPI) were reported as the combined category API (18). The populations used to calculate death rates are also bridged to single-race categories. These populations are produced under a collaborative arrangement with the U.S. Census Bureau and are based

on year 2000 census counts. The procedures used to produce the bridged populations are described in separate publications (19,20). As the remaining 16 reporting areas gradually begin to collect data on race according to the 1997 OMB standards (21), use of the bridged populations is expected to be discontinued.

Readers should keep in mind that the population data used to compile the death rates by race shown in this report are based on special estimation procedures. They are not true counts. The estimation procedures used to develop these populations are subject to error. Smaller population groups are affected much more than larger populations by this measurement error, especially the AIAN population (19).

Previous preliminary death reports have compared preliminary data from the current data year with final data from the previous year (1-13). Since the final data for 2008 are not yet available, all comparisons in this report are between the 2008 preliminary data (22) and the 2009 preliminary data.

## Results

### Trends in numbers and rates

The preliminary number of deaths in the United States for 2009 was 2,436,682 (Tables A and 1). The crude death rate of 793.7 per 100,000 population was 2.4 percent less than the rate of 813.3 per 100,000 in 2008. The estimated age-adjusted death rate, which accounts for changes in the age distribution of the population, reached a record low of 741.0 per 100,000 U.S. standard population, 2.3 percent lower than the 2008 rate of 758.7 (Tables A and 1) (22). Figure 1 illustrates the general pattern of decline in both crude and age-adjusted death rates from 1980 through 2009. The age-adjusted death rate decreased from 2008 to 2009 by 2.8 percent for females and 1.4 percent for males. The relative magnitudes of significant changes in age-adjusted death rates by sex, race, and Hispanic origin (Table 1) are:

White males (1.5 percent decrease)

White females (3.0 percent decrease)

Non-Hispanic white males (1.9 percent decrease)

Non-Hispanic white females (3.3 percent decrease)

Black females (1.5 percent decrease)

Non-Hispanic black females (1.7 percent decrease)

Hispanic males (2.6 percent decrease)

Hispanic females (3.3 percent decrease)

Among the major race and Hispanic origin groups, the lowest mortality was reported for the API, Hispanic, and AIAN populations. Compared with the non-Hispanic white population, preliminary age-adjusted death rates were 44.5 percent lower for the API population, 30.3 percent lower for the Hispanic population, and 19.0 percent lower for the AIAN population. In contrast, the age-adjusted death rate for the non-Hispanic black population was 26.6 percent higher than that for the non-Hispanic

white population (Table 1). It is important to keep in mind, however, that mortality for races other than white and black may be seriously understated in some cases due to underreporting for some race groups and Hispanic origin on death certificates (23-25).

Statistically significant decreases in mortality from 2008 to 2009 were registered for those under 1 year, 1-4 years, 15-24 years and across age groups ranging 55 – 84 years of age. Other age groups did not experience significant change. The magnitude of the significant changes in mortality by age group is (Table 1):

| | |
|---|---|
| Under 1 year | (4.2 percent decrease) |
| 1-4 years | (7.7 percent decrease) |
| 15-24 years | (6.7 percent decrease) |
| 55-64 years | (0.9 percent decrease) |
| 65-74 years | (3.4 percent decrease) |
| 75-84 years | (4.9 percent decrease) |

The death rate for ''under 1 year'' shown above is based on a population estimate and is different from the infant mortality rate, which is based on live births (see ''Infant mortality'').

Preliminary life expectancy data shown in this report for the 2008 data year have been updated and may differ from those previously published (see "Life Tables" in "Technical Notes"). Life expectancy data shown in this report for data years 2008–2009 are based on methodology that was revised in 2000. The revised methodology is similar to that developed for the 1999–2001 decennial life tables; see ''Technical Notes.'' The preliminary estimate of life expectancy at birth for the total population in 2009 is 78.2 years. This represents an increase in life expectancy of 0.2 year relative to 2008 (see Tables A and 6). Life expectancy for males increased 0.2 year, from 75.5 in 2008 to 75.7 in 2009. Female life expectancy increased from 80.5 years to 80.6 years. The difference between male and female life expectancy at birth has been generally decreasing since its peak of 7.8 years in 1979 (26). The gap between male and female life expectancy was 4.9 years in 2009. The difference in life expectancy between the white and black populations in 2009 was 4.3 years, a 0.2 year increase from the 2008 gap between the two races (22).

White females have the highest life expectancy (Figure 2), followed by, in order, black females, white males, and black males. Figure 2 also shows that this pattern has not changed from 1975 through 2009, even though life expectancy for all groups has generally increased over this time period.

By state of residence, Hawaii had the lowest mortality in 2009 with an age-adjusted death rate of 619.8 deaths per 100,000 standard population (Table 3). Mortality was highest in West Virginia, with an age-adjusted death rate of 949.6 per 100,000 standard population.

## Causes of death

The 15 leading causes of death in 2009 remained the same as in 2008, with the exception of two causes that exchanged ranks. Intentional self-harm (suicide), the eleventh leading cause of death in 2008, became the tenth leading cause of death in 2009, whereas Septicemia, the tenth leading cause in 2008, became the eleventh leading cause of death in 2009.

The 15 leading causes of death in 2009 (Table B) were as follows:

1 Diseases of heart

2 Malignant neoplasms

3 Chronic lower respiratory diseases

4 Cerebrovascular diseases

5 Accidents (unintentional injuries)

6 Alzheimer's disease

7 Diabetes mellitus

8 Influenza and pneumonia

9 Nephritis, nephrotic syndrome and nephrosis

10 Intentional self-harm (suicide)

11 Septicemia

12 Chronic liver disease and cirrhosis

13 Essential hypertension and hypertensive renal disease

14 Parkinson's disease

15 Assault (homicide)

From 2008 to 2009 the age-adjusted death rate declined significantly for 10 of the 15 leading causes of death. The preliminary age-adjusted death rate for the leading cause of death, Diseases of heart, decreased by 3.7 percent. The age-adjusted death rate for Malignant neoplasms decreased by 1.1 percent (see Tables B and 2). Deaths from these two diseases combined accounted for 48 percent of deaths in the United States in 2009. Although heart disease mortality has exhibited a downward trend since 1950, cancer mortality began to decline only in the early 1990s (10,22). The preliminary age-adjusted death rate also decreased significantly for Chronic lower respiratory diseases (4.1 percent) and Cerebrovascular diseases (4.2 percent).

Other leading causes of death that showed significant decreases in 2009 relative to 2008 were: Accidents (unintentional injuries) (4.1 percent), Alzheimer's disease (4.1 percent), Diabetes mellitus (4.1 percent), Influenza and pneumonia (4.7 percent), Septicemia (1.8 percent), and Assault (homicide) (6.8 percent).

The observed increase in the age-adjusted death rate for Intentional self-harm (suicide) was not significant. The age-adjusted death rates for Nephritis, nephrotic syndrome and nephrosis, Chronic liver disease and cirrhosis, Essential hypertension and hypertensive renal disease, and Parkinson's disease remained unchanged from 2008 to 2009.

Human immunodeficiency virus (HIV) disease was not among the 15 leading causes of death in 2009. The preliminary age-adjusted death rate for HIV disease declined by 9.1 percent from 2008 to 2009

(Table 2). Following a period of increase from 1987 through 1994, HIV disease mortality reached a plateau in 1995. Subsequently, the rate for this disease decreased an average of 33.0 percent per year from 1995 through 1998 (27), and 5.1 percent per year from 1999 through 2008 (22). For all races combined in the age group 15–24 years, HIV disease was the 12th leading cause of death in 2009, decreasing by two positions relative to its rank as 10th leading cause for 15–24 year-olds in 2008. HIV disease remained the 6th leading cause of death for the age group 25–44 years, unchanged in rank from 2008. Among decedents aged 45–64 years, HIV disease dropped from 12th leading cause in 2008 to 13th leading cause.

Enterocolitis due to *Clostridium difficile (C. difficile)*, a predominantly antibiotic-associated inflammation of the intestines caused by *C. difficile*, a gram-positive, anaerobic, spore-forming bacillus, is of growing concern. The disease is often acquired by long-term patients or residents in hospitals or other health-care facilities and accounted for an increasing number of deaths between 1999 and 2008 (28,29). In 1999, 793 deaths were due to *C. difficile*, compared with 7,483 *C. difficile* deaths in 2008 (22). In 2009 the number of deaths decreased to 7,285. The age-adjusted death rate for this cause decreased from 2.3 deaths per 100,000 standard population in 2008 to 2.2 deaths per 100,000 standard population in 2009 (4.3 percent). In 2009, *C. difficile* ranked as the 19th leading cause of death for the population aged 65 years and older. Approximately 92 percent of deaths from *C. difficile* occurred to people 65 years and older (data not shown).

The preliminary age-adjusted death rate for drug-induced deaths declined by 1.6 percent from 12.3 in 2008 to 12.1 in 2009. However, the final number of drug-induced deaths in 2008 or 2009 may be substantially higher because information on cause of death in these cases is often delayed pending investigation. Additional information based on toxicology or autopsy reports is often not available in the preliminary file. The age-adjusted death rate for injury at work declined 10.5 percent from 1.9 to 1.7. The observed decrease in the age-adjusted death rate for alcohol-induced deaths (1.4 percent) was not significant. Mortality from firearm injuries (Table 2) decreased by 2.9 percent.

### Infant mortality

The preliminary infant mortality rate for 2009 was 6.42 infant deaths per 1,000 live births (see Tables A and 4). This represents a decrease of 2.6 percent from the preliminary 2008 rate of 6.59. With the exception of 2002 and 2005, the infant mortality rate has statistically remained the same or decreased significantly each successive year from 1958 through 2009 (22,30). The neonatal (i.e. infants aged less than 28 days) mortality rate decreased 1.9 percent from 4.27 per 1,000 live births in 2008 to 4.19 per 1,000 live births in 2009, but the decrease was not significant. The postneonatal (i.e. infants aged 28 days – 11 months) mortality rate decreased by 3.4 percent between 2008 and 2009.

The 2009 preliminary infant mortality rate for black infants was 12.71 infant deaths per 1,000 live births, compared with 12.68 per 1,000 live births in 2008, but the observed increase was not significant.

The infant mortality rate for white infants decreased in 2009 by 4.0 percent, from 5.54 infant deaths per 1,000 live births in 2008 to 5.32 in 2009. The mortality rate for black infants was 2.4 times the rate for white infants (See Tables A and 4). Because of inconsistencies in the reporting of race groups on birth and death certificates (especially for races other than white and black and for Hispanic origin), infant mortality rates for these groups are likely to be underestimated (25). The linked birth/infant death data set provides a better source of data for infant deaths and mortality rates by maternal race and ethnicity (31).

Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, the infant death rate is also shown in this report. While similar, these two rates vary based on differences in their denominators. The denominator of the 2009 infant death rate is the estimated population under 1 year of age as of the reference date, July 1, 2009 (14). This population estimate includes a combination of infants born in 2008 who had not reached their first birthday before July 1, 2009, and infants born in 2009 before July 1, 2009. In contrast, the denominator of the 2009 infant mortality rate is all live births occurring during 2009 (32). For example, the preliminary number of live births for 2009 (n = 4,131,019) is 3.1 percent lower than the midyear infant population in 2009 (n = 4,261,494). Therefore, the infant mortality rate for 2009 (642.1 deaths per 100,000 live births) is higher than the infant death rate for 2009 (622.6 deaths per 100,000 population). For 2009, both the infant mortality rate and the infant death rate decreased significantly from 2008.

The 10 leading causes of infant mortality for 2009 were:

1 Congenital malformations, deformations and chromosomal abnormalities

2 Disorders related to short gestation and low birth weight, not elsewhere classified

3 Sudden infant death syndrome

4 Newborn affected by maternal complications of pregnancy

5 Accidents (unintentional injuries)

6 Newborn affected by complications of placenta, cord and membranes

7 Bacterial sepsis of newborn

8 Respiratory distress of newborn

9 Diseases of the circulatory system

10 Neonatal hemorrhage

There were no differences in ranking among the leading causes of infant death between 2008 (22) and 2009 (Table 8).

The infant mortality rate decreased for 2 of 10 leading causes of death from 2008 to 2009 (Tables 5 and 8). The infant mortality rate for Newborn affected by maternal complications of pregnancy —the fourth leading cause of death—decreased by 7.5 percent (Tables 5 and 8). The infant mortality rate for Accidents (unintentional injuries) —the fifth leading cause of death— decreased by 8.5 percent.

Deaths due to SIDS, currently the third leading cause of infant death, have been declining since 1988 (4,22). The observed decrease in SIDS from 53.9 to 52.5 is not statistically significant. Because SIDS deaths often involve lengthy investigations, the mortality rate due to SIDS is typically lower based on preliminary data than that based on the final data. Recent declines in mortality due to SIDS also may reflect primarily a change in the way SIDS is diagnosed and reported by medical examiners and coroners (33).

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## List of detailed tables



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## Technical Notes

### Nature and sources of data

Preliminary mortality data for 2009 are based on a continuous receipt and processing of statistical records by the National Center for Health Statistics (NCHS) through November 5, 2010. NCHS received the data from the states' vital registration systems through the Vital Statistics Cooperative Program. Demographic information for the U.S. was available in calendar year 2009 for an estimated 97.4 percent of infant decedents and 98.5 percent of decedents aged 1 year and over. Medical information for the U.S. was available in calendar year 2009 for an estimated 94.3 percent of infant decedents and 96.5 percent of decedents aged 1 year and over. In this report, U.S. totals include only events occurring within the 50 states and the District of Columbia. Data for Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas included in tables showing data by state are not included in U.S. totals. Information on reporting for the 2008 preliminary data are available elsewhere (22).

For 2009, individual records of infant deaths (deaths under 1 year of age) and deaths of persons 1 year and over are weighted (when necessary) to independent counts of deaths occurring in each state. These state-specific counts serve as control totals and are the basis for the record weights in the preliminary file. If the number of records in the preliminary file is greater than the count received from the state, the state-specific number of records in the preliminary file is used instead and the weight is set at 1.0.

For this report, two separate files are processed. The medical file, or cause of death file, contains records that include both demographic and medical information used to generate tables showing cause of death. The demographic file, which includes records from the medical file as well as additional records containing demographic information only, is used to generate tables showing mortality by demographic characteristics only. A state-specific weight is computed for each file by dividing the state control total by the number of records in the preliminary sample.

Each record is assigned two weights, a state-specific weight and a U.S. weight. State weights are used for state-specific tabulations and U.S. weights are used for national tabulations. For the medical file, the state weight makes the death counts comparable with those in the demographic file. The U.S. weight combines two factors: one to make the medical file counts for the individual record's state comparable with those for the demographic file, and one to compensate for any states not represented in the file. This second factor is equivalent to 0 if all states are represented in the file. Thus, when all states are represented in the preliminary files, the state and U.S. weights are the same.

Because there are two separate files, each with two separate sets of weights, slight inconsistencies may occur between the demographic and medical tables in this report. Table I shows the percent completeness of the preliminary files by place of occurrence for the United States and each state. The percent completeness is obtained by dividing the number of records in the preliminary files by the control total and multiplying by 100. Although data by place of occurrence are used to compute the weights, all data in this report are tabulated by place of residence. Based on a criterion of at least 75 percent completeness of a state's demographic file for the 12-month period as a basis for providing state-specific estimates, the demographic mortality files for 2009 contained less than 71.1 percent of their records for Georgia (Table I); therefore, data for Georgia are included in the U.S. total but are not shown separately in Table 3, which shows deaths and death rates by state. Since the preliminary data for 2009 for Georgia were incomplete, additional review of the data was included to insure the 2009 estimates for the United States were accurate.

For selected variables in the mortality files, unknown or not stated values are imputed. The percentage not stated was less than 1.8 percent for all variables discussed in this report. Detailed information on reporting completeness and imputation procedures may be found in "Technical Appendix, Vital Statistics of the United States: Mortality, 1999" (34).

### 2003 revision of U.S. Standard Certificate of Death

Between 2008 and 2009 there were no changes in the number of states implementing the 2003 revision of the U.S. Standard Certificate of Death. In this report the 30 states and the District of Columbia that implemented the 2003 revision are as follows: Arkansas, California, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Michigan, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York (including New York City), North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, and Wyoming. (Vermont implemented the 2003 revision of the U.S. Standard Certificate of Death in July of 2008, so a portion of their data for 2008 is based on the 1989 revision of the certificate.) The remaining 20 states collected and reported death data in 2009 based on the 1989 revision of the U.S. Standard Certificate of Death. The 2003 revision is described in detail elsewhere (15,16). Since the items presented in this report appear largely comparable despite changes to item wording and format in the 2003 revision, data from both groups of states are combined.

### Race and Hispanic origin

The 2003 revision of the U.S. Standard Certificate of Death allows the reporting of more than one race (multiple races) (15). This change was implemented to reflect the increasing diversity of the population of the United States, to be consistent with the decennial census, and to reflect standards issued in 1997 by the Office of Management and Budget. OMB standards mandate the collection of more than one race for federal data (see "Population denominators") (21). In addition, the new certificate is compliant with the OMB-mandated minimum set of five races to be reported for federal data. These are white, black or African American, American Indian or Alaska Native (AIAN), Asian, and Native Hawaiian or Other Pacific Islander (NHOPI).

For 2009 mortality data, multiple races were reported on the revised death certificates of Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Michigan, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York (including New York City), North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, and Wyoming. Multiple races were also reported on the unrevised certificates of Hawaii, Maine, Minnesota, and Wisconsin. Data from the vital records of the remaining 16 states are based on the 1989 revision of the U.S. Standard Certificate of Death, which follows the 1977 OMB standards, allowing only a single race to be reported (16,17). In addition, these 16 states report a minimum set of four races as stipulated in the 1977 standards. These are white, black or African American, American Indian or Alaska Native (AIAN), and Asian or Pacific Islander (API).

In order to provide uniformity and comparability of data during the transition period, before all or most of the data becomes available in the new multiple race format, it is necessary to adjust the data for those states reporting multiple race by "bridging" the multiple-race information reported for decedents to a single race. The bridging procedure used for mortality numerators is similar to the procedure used to bridge multiracial population estimates (see "Population denominators") (19,20). Multiracial decedents are imputed to a single race (either white, black, AIAN, or API) according to the combination of races, Hispanic origin, sex, and age indicated on the death certificate. The imputation procedure is described in detail at http://www.cdc.gov/nchs/data/dvs/Multiple_race_docu_5-10-04.pdf.

Since race and Hispanic origin are reported separately on the death certificate, data shown by race include persons of Hispanic or non-Hispanic origin, and data for Hispanic origin include persons of any race. In this report, unless otherwise specified, deaths of persons of Hispanic origin are included in the totals for each race group -- white, black, AIAN, and API -- according to the decedent's race as reported on the death certificate. Data shown for Hispanic persons include all persons of Hispanic origin of any race. Mortality data on the Hispanic origin population are based on deaths in all states. Death rates for Hispanic, AIAN, and API persons should be interpreted with caution because of inconsistencies in reporting race on death certificates compared with such reporting on censuses, surveys, and birth certificates. Studies have shown under-reporting on death certificates of AIAN, API, and Hispanic decedents, as well as undercounts of these groups in censuses (23-25).

### Injury at work

Information on deaths attributed to injuries at work is derived from a separate item on the death certificate that asks the medical certifier whether the death resulted from an injury sustained at work. The item is on the death certificate of all states. Number of deaths, crude death rates, and age-adjusted death rates for injury at work for those aged 15 years and over, excluding age not stated, are shown in Table 2. Age-adjusted death rates presented in this report for injury at work were computed using age-specific death rates and the U.S. standard population based on year 2000 standard for ages 15 years and over, excluding age not stated (Table V). If the estimated "employed" population aged 15 years and over had been used instead in the denominator, higher death rates would have resulted, especially for population groups with lower employment rates. See "Computing rates and percentages."

### Cause-of-death classification

Mortality statistics are compiled in accordance with World Health Organization regulations specifying that member nations classify and code causes of death in accordance with the current revision of the International Statistical Classification of Diseases, and Related Health Problems (ICD). The ICD provides the basic guidance used in virtually all countries to code and classify causes of death. It provides not only disease, injury, and poisoning categories but also the rules used to select the single underlying cause of death for tabulation from the several diagnoses that may be reported on a single death certificate, as well as definitions, tabulation lists, the format of the death certificate, and regulations on the use of the classification. Causes of death for data presented in this report were coded according to ICD guidelines which are described in annual issues of part 2a of the NCHS Instruction Manual (35).

Effective with deaths occurring in 1999, the United States began using the Tenth Revision of the ICD, (ICD-10) (36). In 2004, the Second Edition of ICD-10 was adopted (37). During 1979-1998, causes of death were coded and classified according to the Ninth Revision (ICD-9) (38). The change from ICD-9 to ICD-10 resulted in discontinuities for selected cause-of-death trends. These discontinuities are measured using comparability ratios derived from a comparability study (39).

Beginning with data for 2001, NCHS introduced categories *U01-*U03 for classifying and coding deaths due to acts of terrorism. The asterisks before the category codes indicate that they are not part of ICD-10. Deaths classified to the terrorism categories are included in the categories Assault (homicide) and Intentional self-harm (suicide) for the 113 causes-of-death list (Table 2) and Assault (homicide) in the 130 causes-of-infant death list (Table 5). Additional information on the new terrorism categories can be found at http://www.cdc.gov/nchs/icd/terrorism_code.htm. No deaths occurring in 2008 and 2009 were classified to the terrorism categories.

Enterocolitis due to *Clostridium difficile (C. difficile)*— Due to growing concerns about the number of deaths from Enterocolitis due to *Clostridium difficile* (ICD-10 code A04.7), beginning in 2006, *C. difficile* deaths are included separately as a rankable cause of death in tables showing data for 113 selected causes of death (Table 2). The number of deaths due to this cause decreased by 2.6 percent from 7,483 in 2008 to 7,285 in 2009. The age-adjusted death rate for this cause decreased significantly (by 4.3 percent) from 2.3 per 100,000 standard population in 2008 to 2.2 in 2009.

Codes for drug-induced deaths—The list of codes included in drug-induced causes was expanded in data year 2003 to be more comprehensive. The following 37 ICD-10 codes were added to the previous list of drug-induced codes: D52.1, D59.0, D59.2, D61.1, D64.2, E06.4, E16.0, E23.1, E24.2 , E27.3, E66.1, G21.1, G24.0, G25.1, G25.4, G25.6, G44.4, G62.0, G72.0, I95.2, J70.2, J70.3, J70.4, L10.5, L27.0, L27.1, M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R78.1, R78.2, R78.3, R78.4, and R78.5. In addition to expansion of the list in 2003, ICD codes K85.3 (Drug-induced acute pancreatitis) and R50.2 (Drug-induced fever) were added to the list of drug-induced codes in 2006. Two deaths were assigned to K85.3 in 2008; no deaths were classified to these two new codes in 2009.

Codes for alcohol-induced deaths—The list of codes included in alcohol-induced causes was expanded in data year 2003 to be more comprehensive. Three ICD--10 codes were added to the previous list of alcohol-induced codes: E24.4, G72.1, and K86.0. Additionally, K85.2 (Alcohol-induced acute pancreatitis) was added to the list in 2006. In 2008, 405 deaths were classified to K85.2; in 2009, 400 deaths were classified to K85.2.

Recently added codes – Beginning with data for 2009, NCHS added five (5) new World Health Organization ICD-10 codes: A09.0, Other and unspecified gastroenteritis and colitis of infectious origin; A09.9, Gastroenteritis and colitis of unspecified origin; K52.3, Indeterminate colitis; R26.3, Immobility; and R63.6, Insufficient intake of food and water due to self neglect. Deaths classified to codes A09.0 and A09.9 are included in the category Certain other intestinal infections in the list of 113 selected causes of death (Table 2) and in the category Diarrhea and gastroenteritis of infectious origin in the list of 130 selected causes of infant death (Table 5). Deaths classified to the code K52.3 are included in the Residual category of the list of 113 selected causes of death and in the category Gastritis, duodenitis, and noninfective enteritis and colitis in the list of 130 selected causes of infant death. Deaths classified to codes R26.3 and R63.6 are included in the category Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified in both the 113 and 130 cause lists. Additional information on these new categories can be found at http://www.cdc.gov/nchs/data/dvs/Part9InstructionManual2009.pdf (39).

In 2009 the ICD-10 code A09 was expanded from a 3-digit code to two four digit codes (A09.0 and A09.9). This expansion allowed for greater specificity and the result was an increase in the number of deaths classified to A09. This directly affected the category Certain other intestinal infections in the list of 113 selected causes of death in Table 2 (7,883 deaths in 2008 to 10,242 deaths in 2009) and the category Diarrhea and gastroenteritis of infectious origin in the list of 130 selected causes of infant death in Table 5 (0 deaths in 2008 to 328 deaths in 2009). The effect of this change will be examined with final data.

In 2009 the title for the ICD-10 code J09 was changed from Influenza due to identified avian influenza virus to Influenza due to certain identified influenza virus. The reason for this change was to accommodate deaths from influenza A (H1N1) virus in the ICD-10 code J09 for the 2009 data year. In April 2009, the new influenza A (H1N1) virus was determined to be a cause of influenza illness in the United States (41). In 2009, 1,486 deaths were classified to ICD-10 code J09.

## Non-sampling error

Causes of death in this report are subject to non-sampling error. This is because the preliminary file is processed before a full year's worth of data is available. The file is thus subject to the seasonality of certain causes of death that may not be equally distributed throughout the year. It is known, for example, that external causes such as unintentional injuries occur disproportionately during the summer months, and that fatal respiratory conditions are more prevalent during the winter months. Accordingly, the truncated nature of the preliminary file may systematically overemphasize or under-emphasize causes with pronounced seasonality, particularly when these deaths cluster at the end of the year. However, in years where the preliminary file completeness is more than 90 percent, it is unlikely that seasonality is a major factor.

Furthermore, for some deaths, especially those subject to medico-legal investigation such as unintentional injuries, homicides, suicides, and sudden infant death syndrome (SIDS), the final cause may not be available at the time the preliminary file is processed. In those cases, the causes of death may be reported in the preliminary file as unknown or pending investigation and coded to the category Other ill-defined and unspecified causes of mortality (ICD-10 code R99), a subcategory of Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (ICD-10 codes R00-R99). In the final data, some of the deaths of unknown cause in the preliminary file will be reassigned to specific causes if further, more specific cause-of-death information is provided.

A quantitative assessment of the degree of the non-sampling error can be made by comparing final data and preliminary data for the same year. A comparison of such data for the selected 113 causes of death for the total U.S. population from 2005 - 2007 indicates that preliminary estimates for some causes of death are sometimes underestimated and sometimes overestimated in the preliminary file (Table II). Thus, the number of deaths for unintentional injuries was underestimated in the preliminary file by 2.5 percent in 2005; 3.2 percent in 2006; and 5.4 percent in 2007. Similar undercounts occurred for suicide with preliminary underestimates of 2.7 percent in 2005; 3.3 percent in 2006; and 4.1 percent in 2007. Likewise, homicide showed a 2.4 percent underestimate in the preliminary file in 2005; 2.9 percent in 2006; and 4.6 percent in 2007.

Comparisons showing non-sampling error in preliminary estimates for causes of infant death are shown in Table III, where Disorders related to short gestation and low birth weight, not elsewhere classified (P07) was underestimated 0.1 percent in 2005; overestimated by 0.1 percent in 2006, and was underestimated 3.6 percent in 2007. Unintentional injuries (V01-X59) and SIDS (R95) were underestimated in the preliminary data for each of the three years 2005-2007 with unintentional injuries being underestimated between 1.3 percent and 3.7 percent, and SIDS between 5.5 percent and 13.7 percent (Table III).

## Tabulation lists and cause-of-death ranking

Tabulation lists for ICD-10 are published in the NCHS Instruction Manual, Part 9, ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics, Updated March 2009 (40). For this report, two tabulation lists are used: the List of 113 Selected Causes of Death used for deaths of all ages, and the List of 130 Selected Causes of Infant Death used for infants. Modifications in the lists reflecting changes in ICD-codes are footnoted in the report tables. These lists are also used to rank leading causes of death for the two population groups (42). For the List of 113 Selected Causes of Death, the group titles Major cardiovascular diseases (ICD-10 codes I00-I78) and Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (ICD-10 codes R00-R99) are not ranked. In addition,

category titles that begin with the words "Other" and "All other" are not ranked to determine the leading causes of death. When one of the titles that represents a subtotal is ranked (for example, Tuberculosis (ICD-10 codes A16-A19)), its component parts are not ranked (in this case, Respiratory tuberculosis (ICD-10 code A16) and Other tuberculosis (ICD-10 codes A17-A19)). For the List of 130 Selected Causes of Infant Death, the same ranking procedures are used, except that the category Major cardiovascular diseases is not on the list.

### Infant mortality

The infant mortality rate is the most commonly-used index for measuring the risk of dying during the first year of life. The rates presented in this report are calculated by dividing the preliminary number of infant deaths that occurred during 2009 by the number of live births for the same period and are presented as rates per 1,000 or per 100,000 live births. For preliminary birth figures used in the denominator for infant mortality rates, see *Births: Preliminary data for 2009* (32). In contrast to infant mortality rates based on live births, infant death rates are based on the estimated population under 1 year of age (Table 1). Infant death rates that appear in tabulations of age-specific death rates in this report are calculated by dividing the number of infant deaths in 2009 by the estimated population of persons under age 1 on July 1, 2009, and are presented as rates per 100,000 population in this age group. Because of differences in their denominators, infant death rates may differ from infant mortality rates. Information on infant deaths can also be obtained from a file where the infant's death certificate is linked to the birth certificate. The linked birth/infant death data set (linked file) is a better source of data for infant deaths and mortality rates by race and ethnicity because the race of the mother as reported by the mother on the birth certificate is used in both the numerator and denominator of the infant mortality rate. In contrast, for infant deaths and mortality rates in this report, race information for the denominator is the race of the mother as reported on the birth certificate, but the race information for the numerator is the race of the infant decedent as reported on the death certificate. Race information reported on the birth certificate is considered to be more accurate than that on the death certificate, because the race of each parent is usually reported on the birth certificate by the mother at the time of delivery, whereas on the death certificate, the race of the deceased infant is reported by the funeral director based on information provided by an informant or by observation. This difference in the method of reporting race data has a larger impact for races other than white and black and can lead to differences in race-specific infant mortality rates between the two data sources (31).

### Life tables

The period life table provides a measure of the effect of current mortality on life expectancy. It is composed of sets of values showing the mortality experience of a hypothetical group of infants born at the same time and subject throughout their lifetime to the age-specific death rates of a particular time period, usually a given year. Beginning with final data reported for 1997, the life table methodology was changed from previous annual reports. Previously, U.S. life tables were abridged and constructed by reference to a standard table (43). In addition, the age range for these life tables was limited to 5-year age groups ending with the age group 85 years and over.

For 1997-1999 mortality data, a revised life table methodology was used to construct complete life tables by single years of age that extend to age 100 (44) using a methodology similar to that of the decennial life tables (45). The advantages of the new methodology over the previous methodology are its comparability with decennial life table methodology, greater accuracy, and greater age detail. A comparison of the two methods shows small differences in resulting values for life expectancy (44). Although the new method produces complete life tables, that is, life tables by single years of age, life table data shown in this report are summarized in 5-year age groupings. To calculate the probability of

dying at each age, the revised methodology uses vital statistics death rates for ages under 85 years and mortality data from the Medicare program for ages 85 years and over. Medicare data were used to model the probability of dying at ages 85 years and over because the data on decedents' age are shown to be significantly more reliable than vital statistics data at the oldest ages (46).

The methodology for constructing life tables was revised once more starting with mortality data for the year 2000. Life table data shown in this report for years 2008-2009 (Table 6) are based on this revised methodology. Complete life tables by single years of age that extend to age 100 were constructed using a methodology similar to that developed for the 1999-2001 decennial life tables (47). To calculate the probability of dying at each age, two major changes were made to the methodology: 1) Probabilities for ages 66 - 100 years were based on blended vital statistics and Medicare probabilities of dying (probabilities of death for ages 65 and under were based on vital statistics data as before); and 2) Smoothing and extrapolation of death rates for ages 66-100 years was performed using a mathematical model (47). In the previous method, Medicare probabilities were modeled for ages 85 years and over; no blending or smoothing was done. The newly revised methodology, along with a more comprehensive description of the methodology, was published in *United States Life Tables, 2005* (48).

The life expectancy data shown in this report for the 2008 data year have been updated and may differ from those published in the report *Deaths: Preliminary Data for 2008* (22). The data were updated due to an error found in the original population data during the tabulation of the life tables for the 2008 report.

### Population denominators

The rates in this report use population estimates based on the 2000 census and are estimated as of July 1, 2008 and July 1, 2009. These population estimates are available on the NCHS website (14,49).

The population estimates have been produced under a collaborative arrangement with the U.S. Census Bureau and are based on the 2000 census counts. Reflecting the new standards issued in 1997 by the Office of Management and Budget (OMB), the 2000 census included an option for persons to report more than one race as appropriate for themselves and household members (21). In addition, the 1997 OMB standards called for reporting of Asian persons separately from NHOPI. In the 1977 OMB standards, data for API persons were collected as a single group (17). Death certificates for 16 states currently collect only one race in the same categories as specified in the 1977 OMB standards (see "2003 revision of U.S. Standard Certificate of Death"). In addition, those death certificate data do not report Asians separately from NHOPI. Thus, for nearly one-third of the states, the death certificate data by race (numerators for death rates) are incompatible with population data collected in the 2000 census (the denominators for the rates).

In order to produce national death rates for 2008 and 2009, the reported population data for multiple-race persons had to be "bridged" back to single race categories. In addition, the census counts were modified to be consistent with the 1977 OMB racial categories; that is, to report the data for Asian persons and NHOPI as one combined category, API, and to reflect age as of the census reference date. The procedures used to produce the bridged populations are described in separate publications (19,20). Bridged data are anticipated to be used over the next few years for computing population-based rates. As more states collect data on race according to the 1997 OMB standards (21), use of the bridged populations is expected to be discontinued.

## Computing rates and percentages

Death rates are on an annual basis per 100,000 estimated population residing in the specified area. Infant mortality rates are per 1,000 or per 100,000 live births.

Age-adjusted death rates (*R'*) are used to compare relative mortality risks among groups and over time. However, they should be viewed as relative indexes rather than as actual measures of mortality risk. They were computed by the direct method; that is, by applying age-specific death rates ($R_i$) to the U.S. standard population (relative age distribution of year 2000 projected population of the United States); see the following formula for age-adjusted death rate, and the table of U.S. standard population (Table IV):

$$R' = \sum_i \frac{P_{si}}{P_s} R_i$$

where

$P_{si}$ = standard population for age group *i*

$P_s$ = total U.S. standard population [all ages combined (Table IV)]

Table IV. United States year 2000 standard population

| Age | Population |
|---|---|
| All ages..... | 274,633,642 |
| Under 1 year..... | 3,794,901 |
| 1-4 years..... | 15,191,619 |
| 5-14 years..... | 39,976,619 |
| 15-24 years..... | 38,076,743 |
| 25-34 years..... | 37,233,437 |
| 35-44 years..... | 44,659,185 |
| 45-54 years..... | 37,030,152 |
| 55-64 years..... | 23,961,506 |
| 65-74 years..... | 18,135,514 |
| 75-84 years..... | 12,314,793 |
| 85 years and over..... | 4,259,173 |

Age-adjusted death rates for injury at work were computed by applying the age-specific death rates to the U.S. standard population for ages 15 years and over. The year 2000 standard population used for computing age-adjusted rates and standard errors for injury at work is shown in Table V:

Table V. United States year 2000 standard population for ages 15 years and over

| Age | Population |
|---|---|
| 15 years and over..... | 215,670,503 |
| 15-24 years..... | 38,076,743 |
| 25-34 years..... | 37,233,437 |
| 35-44 years..... | 44,659,185 |
| 45-54 years..... | 37,030,152 |
| 55-64 years..... | 23,961,506 |
| 65 years and over..... | 34,709,480 |

Age-adjusted rates for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas were computed by applying age-specific death rates to the U.S. standard population. Age groups for 75 years and over were combined because population counts were unavailable by age group for ages over 79 years. The year 2000 standard population used for computing age-adjusted rates and standard errors for the territories is shown in Table VI:

Table VI. United States year 2000 standard population for the territories

| Age | Population |
|---|---|
| All ages..... | 274,633,642 |
| Under 1 year..... | 3,794,901 |
| 1-4 years..... | 15,191,619 |
| 5-14 years..... | 39,976,619 |
| 15-24 years..... | 38,076,743 |
| 25-34 years..... | 37,233,437 |
| 35-44 years..... | 44,659,185 |
| 45-54 years..... | 37,030,152 |
| 55-64 years..... | 23,961,506 |
| 65-74 years..... | 18,135,514 |
| 75 years and over..... | 16,573,966 |

Effective with 1999 data, the standard population was changed from 1940 to the year 2000 population in accordance with the new statistical policy promulgated by the Secretary of Health and Human Services in August 1998 (50). The new population standard affects levels of mortality and to some extent trends and group comparisons. Of particular note are the effects on race comparison of mortality; see *Age Standardization of Death Rates: Implementation of the Year 2000 Standard* (50). Beginning with 2003 data, the traditional standard million population along with corresponding standard weights to six decimal places were replaced by the projected year 2000 population age distribution. The effect of the change is negligible and does not significantly affect comparability with age-adjusted rates calculated using the previous method.

Death rates for the Hispanic population are based only on events to persons reported as Hispanic. Rates for non-Hispanic white persons are based on the sum of all events to white decedents reported as non-

Hispanic and white decedents with origin not stated. Likewise, rates for non-Hispanic black persons are based on the sum of all events to black decedents reported as non-Hispanic and black decedents with origin not stated. Hispanic origin is not imputed if it is not reported. For calculating death rates, deaths with age not stated are not distributed. The number of deaths with age not stated in 2009 was 315, approximately 0.01 percent of all deaths.

For statistics shown on tables throughout this report, an asterisk (*) indicates that the figure does not meet standards of reliability or precision. In this report two sets of criteria determine whether a figure meets these standards:

- Reporting for any particular variable is at least 80 percent complete. In this report, no data were suppressed based on this criterion.

- A rate or percentage is based on at least 20 deaths. Rates based on fewer than 20 deaths have a relative standard error (RSE) of about 23 percent or more and, therefore, are considered highly variable. For age-adjusted death rates, this criterion is applied to the sum of the age-specific deaths. However, some death rates (based on data files that are less than 100 percent complete and on 20-31 deaths) may have RSEs of 23 percent or more but are still shown instead of asterisks. As a result, caution should be exercised in analyzing rates based on 20-31 events. Additional information on random variation in numbers of events, rates, ratios, and percentages may be found in "Reliability of estimates."

**Reliability of estimates**

Because the preliminary estimates of deaths in this report are based on files that may not be complete, they are subject to sampling variability. This concept is reflected in the fact that record weights are used to adjust record counts to independent control totals. The lack of completeness of the vital statistics files is due to delays in receiving and processing the death records. Although the proportion of records making up the preliminary file does not constitute a veritable random sample, for the sake of convenience the variability associated with this error (sampling variability) is treated as if it were from a random sample.

Even where the number of vital events in this report is 100 percent complete and not subject to sampling variability, it might be affected by random variation. Thus, when the number of events is small and the probability of such an event is small, considerable caution must be observed in interpreting the data. Such infrequent events may be assumed to follow a Poisson probability distribution. The first column of Table VII shows the estimated RSEs of a file that is nearly 100 percent complete.

Data in a file that is less than 100 percent complete are affected by sampling variation as well as by random variation. The estimated RSEs in columns 2-6 of Table VII for various levels of file completeness are measures of the sampling errors and the random errors of the estimates. They do not include non-sampling error.

The estimated RSEs in Table VII were computed using this formula:

$$1.\ RSE = 100\sqrt{\frac{1}{X} + \frac{(1-f\ )(N-X)}{f\ X\left(N - \frac{1}{f}\right)}}$$

where

f = the sampling fraction or the percent of file completeness/100 from Table I. For mortality data based on deaths under 1 year of age, use f for "infant deaths" for either the demographic or medical file as appropriate. For mortality data based on all ages combined or any age group that is 1 year and over, use f for "deaths 1 year of age and over" for either the demographic or medical files as appropriate.

X = the estimated number of infant deaths or deaths.

N = total count of infant deaths or deaths for the United States or any state. (Note: The RSEs shown in Table VII are based on N = 4,000,000. If N is smaller, the RSEs may be slightly smaller than those shown.)

RSEs may be used to compute 95-percent confidence intervals for the number of events ($X$), for a rate ($R$), or for a percentage ($P$) and to compute statistical tests concerning the equality of two rates ($R_1$ and $R_2$) or two percentages ($P_1$ and $P_2$).

For the number of deaths, the 95-percent confidence interval may be computed as:

$$2.\ Lower\ limit: X_1 - \left(1.96 * X_1 * \frac{RSE(X_1)}{100}\right)$$

$$3.\ Upper\ limit: X_1 + \left(1.96 * X_1 * \frac{RSE(X_1)}{100}\right)$$

As a hypothetical example, assume the number of deaths, $X_1$, is 70 from a file with 80-percent completeness. Then

$$Lower\ limit: 70 - \left(1.96 * 70 * \frac{13.4}{100}\right) = 51.6$$

$$Upper\ limit: 70 + \left(1.96 * 70 * \frac{13.4}{100}\right) = 88.4$$

This means that the chances are 95 times out of 100 that the confidence interval (51.6-88.4) will cover the “true” number of deaths.

For rates based on population estimates in the denominator, the 95-percent confidence interval may be computed as:

$$4.\ Lower\ limit: R_1 - \left(1.96 * R_1 * \frac{RSE(R_1)}{100}\right)$$

$$5.\ Upper\ limit: R_1 + \left(1.96 * R_1 * \frac{RSE(R_1)}{100}\right)$$

As a hypothetical example, assume the death rate, $R_1$, is 20.0, which is based on 70 deaths from a file with 80-percent completeness. Then

$$Lower\ limit:\ 20.0 - \left(1.96 * 20.0 * \frac{13.4}{100}\right) = 14.7$$

$$Upper\ limit:\ 20.0 + \left(1.96 * 20.0 * \frac{13.4}{100}\right) = 25.3$$

This means that the chances are 95 times out of 100 that the confidence interval (14.7-25.3) will cover the "true" rate.

For age-adjusted death rates, *R'*, the 95-percent confidence interval may be computed as follows:

$$6.\ Lower\ limit:\ R' - \left(1.96 * R' * \frac{RSE(R')}{100}\right)$$

$$7.\ Upper\ limit:\ R' + \left(1.96 * R' * \frac{RSE(R')}{100}\right)$$

where

$$8.\ RSE(R') = 100\ \frac{\sqrt{\sum_i \left[w_i^2 R_i^2 \left(\frac{1}{X_i} + \frac{(1 - f_i)(N_i - X_i)}{f_i X_i \left(N_i - \frac{1}{f_i}\right)}\right)\right]}}{R'}$$

where

$i$ = each age group where $i$ = 1 for infant deaths, $i$ = 2 for 1-4 years,

$i$ = 3 for 5-14 years, . . . and $i$ = 11 for 85 years and over.

$R_i$ = age-specific rate for the $i^{th}$ age group.

$w_i$ = $i^{th}$ age-specific U.S. standard population such that $\Sigma w_i = 1.000000$ (see "Computing rates and percentages").

$X_i$ = the estimated number of deaths for the $i^{th}$ age group.

$N_i$ = total count of deaths from Table I for each $i^{th}$ age group (for infant deaths, use the count of records as shown; for all age groups 1-4 through 85 years and over, use the count of records as shown for deaths 1 year and over).

$f_i$ = percentage of file completeness/100 from Table I (for infant deaths, use the percent completeness for the demographic or medical file as appropriate for deaths under age 1 year; for all age

groups 1-4 through 85 years and over, use the percent completeness for the demographic or medical file as appropriate for deaths at ages 1 year and over).

For testing the equality of two rates, $R_1$ and $R_2$, the following z-test may be used to define a significance test statistic:

$$9.\ z = \frac{R_1 - R_2}{\sqrt{R_1^2\left(\frac{RSE(R_1)}{100}\right)^2 + R_2^2\left(\frac{RSE(R_2)}{100}\right)^2}}$$

The two-tailed 0.95 critical value for a z statistic is 1.96. Therefore, if $|z| \geq 1.96$, the difference is significant at the 0.05 level. If $|z| < 1.96$, then the difference would be considered not statistically significant at the 0.05 level.

As a hypothetical example, assume $R_1$ is the same as the above example for the current 12-month period and that $R_2$, 15.0, is based on 50 deaths occurring in the prior 12-month period (which implies that the file is approximately 100 percent complete for $R_2$). The z-test may be determined as follows:

$$z = \frac{20.0 - 15.0}{\sqrt{(20.0)^2\left(\frac{13.4}{100}\right)^2 + (15.0)^2\left(\frac{14.1}{100}\right)^2}} = 1.46$$

Because $|z| < 1.96$, there is no statistically significant difference between the two rates at the 0.05 level of significance.

For rates or percentages based on denominators having random variation only or random and sampling variation, the RSE must take into account the variation in both the numerator and denominator. For example, for a rate, $R_3$, based on the number of live births in the denominator, the RSE is computed as:

$$10.\ RSE(R_3) = 100\sqrt{\left(\frac{RSE(D)}{100}\right)^2 + \left(\frac{RSE(B)}{100}\right)^2}$$

where

RSE(D) = RSE of the number of deaths, D

RSE(B) = RSE of the number of births, B

The 95-percent confidence interval of $R_3$ may be computed as follows:

$$11.\ Lower\ limit:\ R_3 - \left(1.96 * R_3 * \frac{RSE(R_3)}{100}\right)$$

$$12.\ Upper\ limit:\ R_3 + \left(1.96 * R_3 * \frac{RSE(R_3)}{100}\right)$$

As a hypothetical example, assume the infant mortality rate, $R_3$, is 15.0, which is based on 30 infant deaths (D) from a file with 70-percent completeness and 2,000 live births (B) from a file with 80-percent completeness. Then

$$RSE(R_3) = 100\sqrt{\left(\frac{21.8}{100}\right)^2 + \left(\frac{2.5}{100}\right)^2} = 21.9$$

$$Lower\ limit:\ 15.0 - \left(1.96 * 15.0 * \frac{21.9}{100}\right) = 8.6$$

$$Upper\ limit:\ 15.0 + \left(1.96 * 15.0 * \frac{21.9}{100}\right) = 21.4$$

This means that the chances are 95 times out of 100 that the confidence interval (8.6-21.4) will cover the "true" rate. The same formulas are applicable to a percentage ($P_1$) that has variation in both the numerator and denominator. To compare the equality of two infant mortality rates or two percentages that have variation in the numerator and denominator, the above-mentioned z-test may be used.

# Text tables, Figures, and Report tables

**Table A. Deaths, age-adjusted death rates, and life expectancy at birth, by race and sex; and infant deaths and mortality rates, by race: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals]

| | All races[1] | | White[2] | | Black[2] | |
|---|---|---|---|---|---|---|
| Measure and sex | 2009 | 2008 | 2009 | 2008 | 2009 | 2008 |
| All deaths | 2,436,682 | 2,473,018 | 2,085,305 | 2,120,961 | 286,928 | 289,306 |
| Male | 1,217,047 | 1,226,721 | 1,036,938 | 1,046,532 | 146,319 | 147,275 |
| Female | 1,219,635 | 1,246,297 | 1,048,367 | 1,074,429 | 140,609 | 142,031 |
| Age-adjusted death rate[3] | 741.0 | 758.7 | 732.2 | 750.6 | 923.9 | 935.6 |
| Male | 888.2 | 901.0 | 875.9 | 889.5 | 1,148.0 | 1,151.3 |
| Female | 625.4 | 643.7 | 618.2 | 637.1 | 767.7 | 779.0 |
| Life expectancy at birth (in years)[4] | 78.2 | 78.0 | 78.6 | 78.4 | 74.3 | 74.3 |
| Male | 75.7 | 75.5 | 76.2 | 75.9 | 70.9 | 70.9 |
| Female | 80.6 | 80.5 | 80.9 | 80.8 | 77.4 | 77.4 |
| All infant deaths | 26,531 | 28,033 | 16,897 | 18,162 | 8,356 | 8,513 |
| Infant mortality rate[5] | 6.42 | 6.59 | 5.32 | 5.54 | 12.71 | 12.68 |

[1] Includes races other than white and black.

[2] Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported for Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Maine, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming in 2009 and 2008. The multiple-race data for these reporting areas were bridged to the single-race categories of the 1977 OMB standards for comparability with other reporting areas; see "Technical Notes."

[3] Age-adjusted death rates are per 100,000 U.S. standard population, based on the year 2000 standard.

[4] Life expectancies for 2008 have been updated and may differ from those previously published; see "Technical notes."

[5] Infant mortality rates are deaths under 1 year per 1,000 live births in specified group.

**Table B. Deaths and death rates for 2009 and age-adjusted death rates and percent changes in age-adjusted rates from 2008 to 2009 for the 15 leading causes of death: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population; age-adjusted rates per 100,000 U.S. standard population based on the year 2000 standard; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals]

| Rank[1] | Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Number | Death rate | Age-adjusted death rate | | Percent change |
|---|---|---|---|---|---|---|
| | | | | 2009 | 2008 | |
| ... | All causes | 2,436,652 | 793.7 | 741.0 | 758.6 | -2.3 |
| 1 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 598,607 | 195.0 | 179.8 | 186.7 | -3.7 |
| 2 | Malignant neoplasms (C00-C97) | 568,668 | 185.2 | 173.6 | 175.5 | -1.1 |
| 3 | Chronic lower respiratory diseases (J40-J47) | 137,082 | 44.7 | 42.2 | 44.0 | -4.1 |
| 4 | Cerebrovascular diseases (I60-I69) | 128,603 | 41.9 | 38.9 | 40.6 | -4.2 |
| 5 | Accidents (unintentional injuries) (V01-X59,Y85-Y86)[2] | 117,176 | 38.2 | 37.0 | 38.6 | -4.1 |
| 6 | Alzheimer's disease (G30) | 78,889 | 25.7 | 23.4 | 24.4 | -4.1 |
| 7 | Diabetes mellitus (E10-E14) | 68,504 | 22.3 | 20.9 | 21.8 | -4.1 |
| 8 | Influenza and pneumonia (J09-J18) | 53,582 | 17.5 | 16.2 | 17.0 | -4.7 |
| 9 | Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) | 48,714 | 15.9 | 14.8 | 14.8 | 0.0 |
| 10 | Intentional self-harm (suicide) (*U03,X60-X84,Y87.0)[2] | 36,547 | 11.9 | 11.7 | 11.6 | 0.9 |
| 11 | Septicemia (A40-A41) | 35,587 | 11.6 | 10.9 | 11.1 | -1.8 |
| 12 | Chronic liver disease and cirrhosis (K70,K73-K74) | 30,444 | 9.9 | 9.2 | 9.2 | 0.0 |
| 13 | Essential hypertension and hypertensive renal disease (I10,I12,I15) | 25,651 | 8.4 | 7.7 | 7.7 | 0.0 |
| 14 | Parkinson's disease (G20-G21) | 20,552 | 6.7 | 6.4 | 6.4 | 0.0 |
| 15 | Assault (homicide) (*U01-*U02,X85-Y09,Y87.1)[2] | 16,591 | 5.4 | 5.5 | 5.9 | -6.8 |
| ... | All other causes (Residual) | 471,455 | 153.6 | … | … | … |

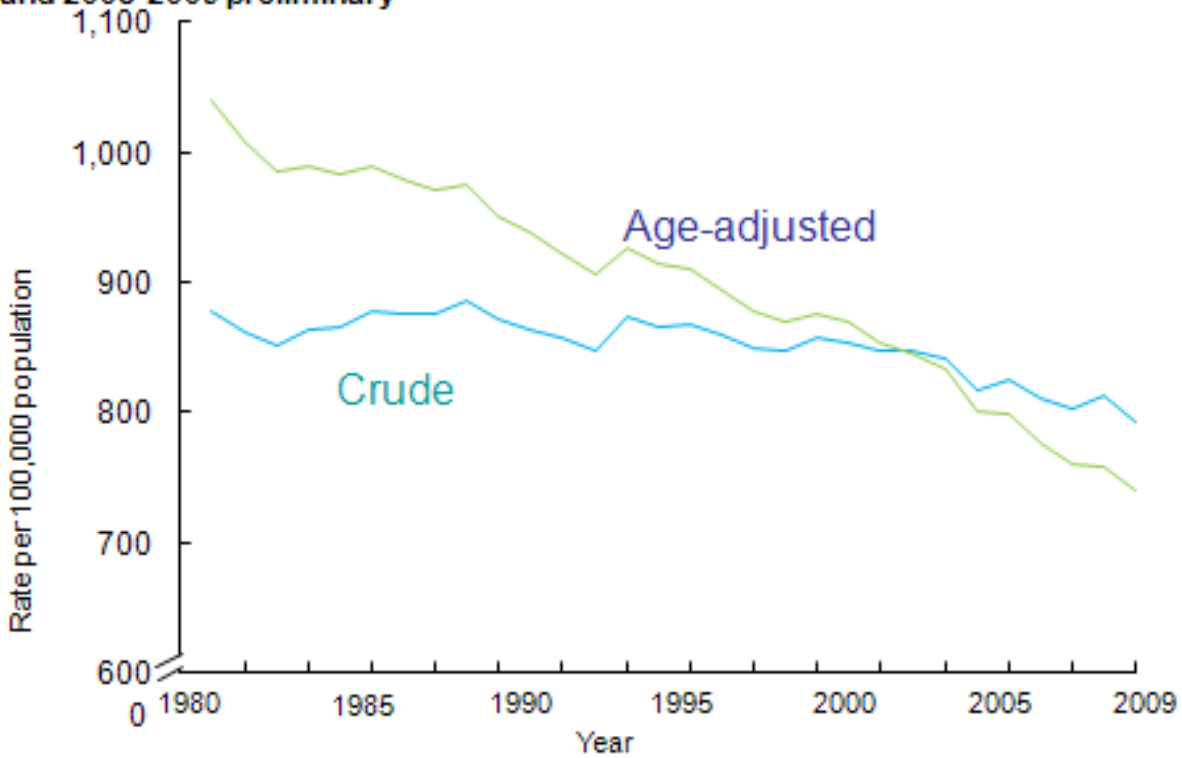
... Category not applicable.

[1]Rank based on number of deaths.

[2]For unintentional injuries, suicides, and homicides, preliminary and final data may differ significantly because of the truncated nature of the preliminary file.

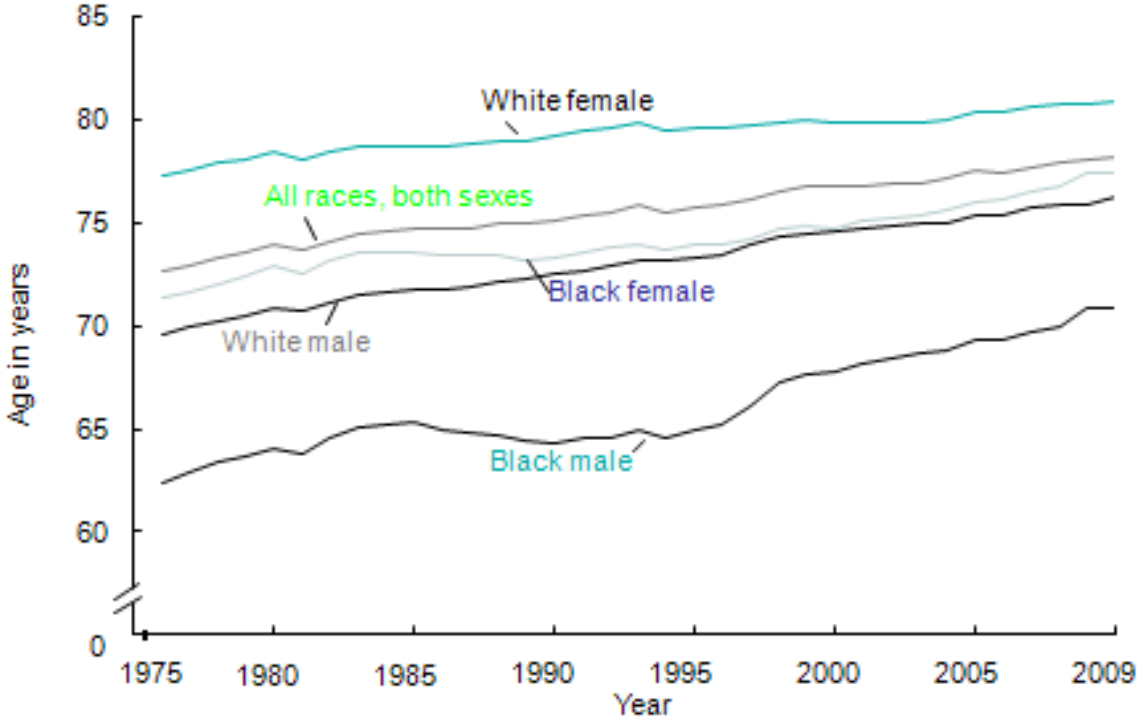
NOTES: Data are subject to sampling and random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

**Figure 1. Crude and age-adjusted death rates: United States 1980-2007 final and 2008-2009 preliminary**




NOTE: Crude death rates on an annual basis are per 100,000 population; age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

**Figure 2. Life expectancy at birth, by race and sex: United States, 1975-2007 final and 2008-2009 preliminary**




SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| All races, both sexes | | | | |
| All ages | 2,436,682 | 793.7 | 2,473,018 | 813.3 |
| Under 1 year[1] | 26,531 | 622.6 | 28,033 | 649.9 |
| 1-4 years | 4,460 | 26.2 | 4,747 | 28.4 |
| 5-14 years | 5,643 | 13.9 | 5,663 | 14.1 |
| 15-24 years | 30,410 | 70.6 | 32,208 | 75.7 |
| 25-34 years | 42,443 | 102.1 | 42,309 | 103.4 |
| 35-44 years | 74,548 | 179.5 | 76,409 | 179.8 |
| 45-54 years | 187,267 | 420.0 | 186,643 | 420.6 |
| 55-64 years | 303,101 | 871.3 | 296,269 | 879.5 |
| 65-74 years | 400,969 | 1,928.5 | 401,750 | 1,996.5 |
| 75-84 years | 627,819 | 4,775.1 | 653,845 | 5,019.9 |
| 85 years and over | 733,176 | 13,021.1 | 744,976 | 13,020.0 |
| Not stated | 315 | . . . | 166 | . . . |
| Age-adjusted rate[2] | . . . | 741.0 | . . . | 758.7 |
| All races, male | | | | |
| All ages | 1,217,047 | 803.6 | 1,226,721 | 818.2 |
| Under 1 year[1] | 14,873 | 682.7 | 15,651 | 708.9 |
| 1-4 years | 2,507 | 28.8 | 2,703 | 31.7 |
| 5-14 years | 3,244 | 15.6 | 3,284 | 16.0 |
| 15-24 years | 22,294 | 100.7 | 24,030 | 109.9 |
| 25-34 years | 29,150 | 137.3 | 29,662 | 141.9 |
| 35-44 years | 46,498 | 222.9 | 47,717 | 223.9 |
| 45-54 years | 114,615 | 521.6 | 115,098 | 526.7 |
| 55-64 years | 183,945 | 1,096.1 | 179,599 | 1,105.2 |
| 65-74 years | 225,740 | 2,353.1 | 225,512 | 2,434.0 |
| 75-84 years | 311,135 | 5,711.5 | 322,031 | 6,034.7 |
| 85 years and over | 262,839 | 14,744.1 | 261,319 | 14,022.5 |
| Not stated | 206 | . . . | 115 | . . . |
| Age-adjusted rate[2] | . . . | 888.2 | . . . | 901.0 |
| All races, female | | | | |
| All ages | 1,219,635 | 784.0 | 1,246,297 | 808.6 |
| Under 1 year[1] | 11,658 | 559.7 | 12,382 | 588.1 |
| 1-4 years | 1,953 | 23.4 | 2,044 | 25.1 |
| 5-14 years | 2,399 | 12.1 | 2,379 | 12.1 |
| 15-24 years | 8,116 | 38.8 | 8,178 | 39.5 |
| 25-34 years | 13,293 | 65.3 | 12,647 | 63.1 |
| 35-44 years | 28,050 | 135.7 | 28,692 | 135.4 |
| 45-54 years | 72,652 | 321.2 | 71,546 | 317.7 |
| 55-64 years | 119,155 | 661.8 | 116,670 | 669.2 |
| 65-74 years | 175,229 | 1,564.7 | 176,238 | 1,623.1 |
| 75-84 years | 316,684 | 4,112.6 | 331,814 | 4,315.6 |
| 85 years and over | 470,337 | 12,222.9 | 483,656 | 12,535.8 |
| Not stated | 109 | . . . | 51 | . . . |
| Age-adjusted rate[2] | . . . | 625.4 | . . . | 643.7 |

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| Total white, both sexes | | | | |
| All ages | 2,085,305 | 844.3 | 2,120,961 | 864.9 |
| Under 1 year[1] | 16,897 | 520.4 | 18,162 | 549.8 |
| 1-4 years | 3,159 | 24.2 | 3,350 | 26.0 |
| 5-14 years | 4,000 | 12.7 | 4,072 | 13.0 |
| 15-24 years | 22,237 | 66.4 | 23,627 | 71.2 |
| 25-34 years | 31,433 | 96.8 | 31,123 | 96.9 |
| 35-44 years | 56,241 | 170.7 | 57,627 | 170.4 |
| 45-54 years | 145,807 | 399.0 | 144,834 | 397.6 |
| 55-64 years | 243,556 | 831.6 | 238,951 | 840.6 |
| 65-74 years | 337,884 | 1,891.9 | 338,817 | 1,959.2 |
| 75-84 years | 555,011 | 4,817.2 | 579,658 | 5,051.9 |
| 85 years and over | 668,835 | 13,181.2 | 680,608 | 13,288.2 |
| Not stated | 244 | . . . | 130 | . . . |
| Age-adjusted rate[2] | . . . | 732.2 | . . . | 750.6 |
| White male | | | | |
| All ages | 1,036,938 | 846.1 | 1,046,532 | 860.6 |
| Under 1 year[1] | 9,456 | 569.5 | 10,151 | 600.2 |
| 1-4 years | 1,791 | 26.8 | 1,920 | 29.1 |
| 5-14 years | 2,311 | 14.3 | 2,340 | 14.6 |
| 15-24 years | 16,223 | 94.0 | 17,546 | 102.6 |
| 25-34 years | 21,746 | 129.7 | 22,075 | 133.2 |
| 35-44 years | 35,572 | 212.2 | 36,677 | 213.6 |
| 45-54 years | 90,684 | 497.9 | 90,857 | 500.8 |
| 55-64 years | 148,819 | 1,040.7 | 145,915 | 1,051.9 |
| 65-74 years | 191,405 | 2,298.3 | 191,321 | 2,377.5 |
| 75-84 years | 277,531 | 5,750.3 | 287,530 | 6,054.3 |
| 85 years and over | 241,241 | 14,947.8 | 240,108 | 14,358.6 |
| Not stated | 160 | . . . | 93 | . . . |
| Age-adjusted rate[2] | . . . | 875.9 | . . . | 889.5 |
| White female | | | | |
| All ages | 1,048,367 | 842.6 | 1,074,429 | 869.0 |
| Under 1 year[1] | 7,441 | 469.0 | 8,011 | 496.8 |
| 1-4 years | 1,369 | 21.5 | 1,430 | 22.8 |
| 5-14 years | 1,690 | 11.0 | 1,733 | 11.4 |
| 15-24 years | 6,014 | 37.1 | 6,081 | 37.8 |
| 25-34 years | 9,687 | 61.6 | 9,049 | 58.2 |
| 35-44 years | 20,669 | 127.7 | 20,949 | 125.8 |
| 45-54 years | 55,124 | 300.7 | 53,978 | 295.2 |
| 55-64 years | 94,737 | 632.0 | 93,037 | 639.2 |
| 65-74 years | 146,479 | 1,536.9 | 147,496 | 1,595.1 |
| 75-84 years | 277,480 | 4,144.6 | 292,128 | 4,344.1 |
| 85 years and over | 427,594 | 12,357.2 | 440,501 | 12,769.4 |
| Not stated | 84 | . . . | 37 | . . . |
| Age-adjusted rate[2] | . . . | 618.2 | . . . | 637.1 |

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| Non-Hispanic white, both sexes | | | | |
| All ages | 1,935,927 | 957.6 | 1,981,198 | 982.0 |
| Under 1 year[1] | 11,658 | 516.5 | 12,545 | 544.0 |
| 1-4 years | 2,179 | 23.9 | 2,380 | 26.2 |
| 5-14 years | 2,857 | 12.2 | 3,082 | 13.2 |
| 15-24 years | 17,072 | 65.3 | 18,570 | 70.7 |
| 25-34 years | 25,054 | 100.8 | 24,868 | 101.6 |
| 35-44 years | 47,507 | 180.2 | 49,109 | 180.0 |
| 45-54 years | 129,908 | 409.4 | 130,455 | 410.4 |
| 55-64 years | 223,250 | 842.6 | 220,247 | 854.9 |
| 65-74 years | 314,166 | 1,917.3 | 316,695 | 1,994.5 |
| 75-84 years | 522,348 | 4,882.7 | 549,133 | 5,143.4 |
| 85 years and over | 639,807 | 13,422.0 | 654,028 | 13,556.3 |
| Not stated | 123 | . . . | 88 | . . . |
| Age-adjusted rate[2] | . . . | 744.7 | . . . | 766.2 |
| Non-Hispanic white male | | | | |
| All ages | 954,633 | 961.2 | 969,419 | 978.4 |
| Under 1 year[1] | 6,547 | 566.8 | 7,044 | 596.3 |
| 1-4 years | 1,257 | 26.9 | 1,367 | 29.3 |
| 5-14 years | 1,677 | 14.0 | 1,811 | 15.1 |
| 15-24 years | 12,249 | 91.3 | 13,578 | 100.8 |
| 25-34 years | 17,068 | 136.0 | 17,348 | 140.6 |
| 35-44 years | 29,709 | 224.8 | 30,831 | 225.5 |
| 45-54 years | 80,296 | 510.2 | 81,342 | 515.9 |
| 55-64 years | 136,173 | 1,052.0 | 134,286 | 1,067.2 |
| 65-74 years | 177,944 | 2,322.4 | 178,750 | 2,413.2 |
| 75-84 years | 261,433 | 5,832.5 | 272,518 | 6,167.3 |
| 85 years and over | 230,211 | 15,295.4 | 230,484 | 14,721.1 |
| Not stated | 67 | . . . | 58 | . . . |
| Age-adjusted rate[2] | . . . | 891.7 | . . . | 908.6 |
| Non-Hispanic white female | | | | |
| All ages | 981,295 | 954.2 | 1,011,780 | 985.6 |
| Under 1 year[1] | 5,111 | 463.8 | 5,500 | 488.9 |
| 1-4 years | 922 | 20.8 | 1,012 | 22.8 |
| 5-14 years | 1,179 | 10.4 | 1,271 | 11.1 |
| 15-24 years | 4,822 | 37.9 | 4,993 | 39.1 |
| 25-34 years | 7,986 | 64.9 | 7,520 | 62.0 |
| 35-44 years | 17,797 | 135.4 | 18,278 | 134.3 |
| 45-54 years | 49,612 | 310.3 | 49,112 | 306.6 |
| 55-64 years | 87,078 | 642.5 | 85,961 | 652.3 |
| 65-74 years | 136,222 | 1,561.5 | 137,944 | 1,628.4 |
| 75-84 years | 260,915 | 4,197.8 | 276,614 | 4,420.4 |
| 85 years and over | 409,596 | 12,557.5 | 423,543 | 12,996.7 |
| Not stated | 55 | . . . | 30 | . . . |
| Age-adjusted rate[2] | . . . | 629.1 | . . . | 650.9 |

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| Total black, both sexes | | | | |
| All ages | 286,928 | 699.8 | 289,306 | 716.7 |
| Under 1 year[1] | 8,356 | 1,176.7 | 8,513 | 1,190.7 |
| 1-4 years | 1,068 | 38.4 | 1,131 | 42.1 |
| 5-14 years | 1,300 | 20.2 | 1,287 | 20.1 |
| 15-24 years | 6,749 | 96.8 | 7,222 | 105.6 |
| 25-34 years | 9,211 | 154.4 | 9,287 | 159.8 |
| 35-44 years | 15,141 | 273.5 | 15,797 | 281.1 |
| 45-54 years | 35,447 | 646.3 | 35,994 | 665.4 |
| 55-64 years | 50,704 | 1,375.4 | 48,748 | 1,385.6 |
| 65-74 years | 51,943 | 2,649.5 | 51,810 | 2,734.4 |
| 75-84 years | 57,585 | 5,190.9 | 59,172 | 5,652.7 |
| 85 years and over | 49,371 | 13,467.3 | 50,315 | 12,071.2 |
| Not stated | 53 | . . . | 30 | . . . |
| Age-adjusted rate[2] | . . . | 923.9 | . . . | 935.6 |
| Black male | | | | |
| All ages | 146,319 | 745.9 | 147,275 | 763.4 |
| Under 1 year[1] | 4,724 | 1,303.5 | 4,728 | 1,293.2 |
| 1-4 years | 577 | 40.8 | 654 | 47.8 |
| 5-14 years | 756 | 23.1 | 769 | 23.6 |
| 15-24 years | 5,100 | 144.3 | 5,522 | 159.4 |
| 25-34 years | 6,238 | 213.2 | 6,378 | 225.4 |
| 35-44 years | 8,957 | 343.4 | 9,201 | 348.0 |
| 45-54 years | 20,296 | 801.0 | 20,703 | 828.2 |
| 55-64 years | 29,918 | 1,820.1 | 28,686 | 1,827.7 |
| 65-74 years | 28,095 | 3,429.3 | 28,001 | 3,541.4 |
| 75-84 years | 26,147 | 6,394.9 | 27,094 | 7,107.5 |
| 85 years and over | 15,477 | 15,448.7 | 15,518 | 12,538.0 |
| Not stated | 34 | . . . | 20 | . . . |
| Age-adjusted rate[2] | . . . | 1,148.0 | . . . | 1,151.3 |
| Black female | | | | |
| All ages | 140,609 | 657.5 | 142,031 | 674.0 |
| Under 1 year[1] | 3,632 | 1,044.5 | 3,785 | 1,083.5 |
| 1-4 years | 491 | 36.0 | 477 | 36.1 |
| 5-14 years | 544 | 17.2 | 518 | 16.4 |
| 15-24 years | 1,649 | 48.0 | 1,701 | 50.4 |
| 25-34 years | 2,972 | 97.7 | 2,909 | 97.6 |
| 35-44 years | 6,183 | 211.2 | 6,596 | 221.7 |
| 45-54 years | 15,151 | 513.4 | 15,290 | 525.5 |
| 55-64 years | 20,786 | 1,017.6 | 20,062 | 1,029.5 |
| 65-74 years | 23,848 | 2,089.8 | 23,809 | 2,156.4 |
| 75-84 years | 31,438 | 4,488.2 | 32,077 | 4,819.3 |
| 85 years and over | 33,894 | 12,722.2 | 34,797 | 11,874.0 |
| Not stated | 20 | . . . | 10 | . . . |
| Age-adjusted rate[2] | . . . | 767.7 | . . . | 779.0 |

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| Non-Hispanic black, both sexes | | | | |
| All ages | 282,694 | 727.4 | 285,959 | 746.4 |
| Under 1 year[1] | 8,012 | 1,255.3 | 8,193 | 1,271.8 |
| 1-4 years | 1,028 | 41.2 | 1,085 | 44.6 |
| 5-14 years | 1,263 | 21.0 | 1,260 | 20.9 |
| 15-24 years | 6,586 | 99.5 | 7,096 | 109.1 |
| 25-34 years | 9,007 | 159.5 | 9,130 | 166.2 |
| 35-44 years | 14,871 | 282.8 | 15,600 | 291.9 |
| 45-54 years | 34,993 | 663.0 | 35,605 | 683.5 |
| 55-64 years | 50,046 | 1,403.3 | 48,289 | 1,418.6 |
| 65-74 years | 51,302 | 2,697.2 | 51,303 | 2,791.6 |
| 75-84 years | 56,768 | 5,259.4 | 58,551 | 5,753.3 |
| 85 years and over | 48,770 | 13,716.8 | 49,823 | 12,259.9 |
| Not stated | 48 | . . . | 24 | . . . |
| Age-adjusted rate[2] | . . . | 942.6 | . . . | 956.6 |
| Non-Hispanic black male | | | | |
| All ages | 144,001 | 776.1 | 145,377 | 795.5 |
| Under 1 year[1] | 4,542 | 1,394.6 | 4,542 | 1,379.5 |
| 1-4 years | 561 | 44.2 | 624 | 50.4 |
| 5-14 years | 733 | 24.0 | 752 | 24.6 |
| 15-24 years | 4,980 | 148.5 | 5,428 | 164.8 |
| 25-34 years | 6,090 | 220.5 | 6,252 | 234.2 |
| 35-44 years | 8,788 | 355.1 | 9,080 | 361.5 |
| 45-54 years | 20,002 | 821.2 | 20,450 | 850.4 |
| 55-64 years | 29,496 | 1,857.5 | 28,378 | 1,871.3 |
| 65-74 years | 27,734 | 3,494.6 | 27,702 | 3,617.3 |
| 75-84 years | 25,755 | 6,485.2 | 26,797 | 7,243.7 |
| 85 years and over | 15,290 | 15,824.9 | 15,358 | 12,760.9 |
| Not stated | 31 | . . . | 14 | . . . |
| Age-adjusted rate[2] | . . . | 1,173.2 | . . . | 1,178.3 |
| Non-Hispanic black female | | | | |
| All ages | 138,693 | 683.0 | 140,582 | 701.6 |
| Under 1 year[1] | 3,471 | 1,110.5 | 3,651 | 1,159.1 |
| 1-4 years | 467 | 38.0 | 461 | 38.6 |
| 5-14 years | 530 | 17.9 | 508 | 17.1 |
| 15-24 years | 1,607 | 49.2 | 1,669 | 52.0 |
| 25-34 years | 2,917 | 101.2 | 2,878 | 101.9 |
| 35-44 years | 6,083 | 218.5 | 6,520 | 230.2 |
| 45-54 years | 14,991 | 527.4 | 15,155 | 540.4 |
| 55-64 years | 20,550 | 1,038.7 | 19,911 | 1,054.8 |
| 65-74 years | 23,568 | 2,126.3 | 23,600 | 2,201.6 |
| 75-84 years | 31,013 | 4,545.8 | 31,753 | 4,902.0 |
| 85 years and over | 33,480 | 12,930.1 | 34,465 | 12,049.1 |
| Not stated | 17 | . . . | 10 | . . . |
| Age-adjusted rate[2] | . . . | 782.6 | . . . | 796.1 |

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| Total AIAN,[3,4] both sexes | | | | |
| All ages | 14,941 | 426.8 | 14,785 | 432.1 |
| Under 1 year[1] | 383 | 541.7 | 405 | 582.0 |
| 1-4 years | 85 | 31.5 | 100 | 38.9 |
| 5-14 years | 114 | 20.2 | 97 | 17.5 |
| 15-24 years | 671 | 110.1 | 636 | 105.5 |
| 25-34 years | 751 | 141.7 | 774 | 151.0 |
| 35-44 years | 1,258 | 278.4 | 1,214 | 266.9 |
| 45-54 years | 2,172 | 485.8 | 2,090 | 477.0 |
| 55-64 years | 2,523 | 827.2 | 2,446 | 847.0 |
| 65-74 years | 2,656 | 1,738.0 | 2,668 | 1,844.7 |
| 75-84 years | 2,531 | 3,447.8 | 2,589 | 3,646.9 |
| 85 years and over | 1,786 | 6,722.6 | 1,762 | 6,155.5 |
| Not stated | 11 | . . . | 3 | . . . |
| Age-adjusted rate[2] | . . . | 603.2 | . . . | 610.3 |
| AIAN[3,4] male | | | | |
| All ages | 8,097 | 462.4 | 8,170 | 478.0 |
| Under 1 year[1] | 213 | 592.5 | 234 | 659.7 |
| 1-4 years | 50 | 36.5 | 50 | 38.4 |
| 5-14 years | 56 | 19.6 | 52 | 18.5 |
| 15-24 years | 468 | 150.5 | 462 | 150.7 |
| 25-34 years | 501 | 182.1 | 530 | 199.0 |
| 35-44 years | 779 | 338.3 | 725 | 315.0 |
| 45-54 years | 1,251 | 574.0 | 1,318 | 618.3 |
| 55-64 years | 1,494 | 1,022.7 | 1,440 | 1,039.3 |
| 65-74 years | 1,433 | 2,009.3 | 1,466 | 2,172.8 |
| 75-84 years | 1,219 | 3,907.6 | 1,271 | 4,156.7 |
| 85 years and over | 626 | 7,002.2 | 621 | 6,503.3 |
| Not stated | 8 | . . . | - | . . . |
| Age-adjusted rate[2] | . . . | 696.7 | . . . | 717.8 |
| AIAN[3,4] female | | | | |
| All ages | 6,843 | 391.2 | 6,615 | 386.3 |
| Under 1 year[1] | 170 | 489.1 | 170 | 498.3 |
| 1-4 years | 35 | 26.3 | 50 | 39.5 |
| 5-14 years | 58 | 21.0 | 45 | 16.5 |
| 15-24 years | 203 | 68.0 | 174 | 58.7 |
| 25-34 years | 250 | 98.0 | 244 | 99.1 |
| 35-44 years | 479 | 216.1 | 488 | 217.2 |
| 45-54 years | 921 | 401.9 | 772 | 343.2 |
| 55-64 years | 1,029 | 647.5 | 1,006 | 669.6 |
| 65-74 years | 1,223 | 1,500.6 | 1,202 | 1,557.9 |
| 75-84 years | 1,312 | 3,108.0 | 1,319 | 3,263.7 |
| 85 years and over | 1,159 | 6,575.1 | 1,141 | 5,981.3 |
| Not stated | 3 | . . . | 3 | . . . |
| Age-adjusted rate[2] | . . . | 520.2 | . . . | 515.0 |

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| Total API,[5] both sexes | | | | |
| All ages | 49,508 | 318.8 | 47,966 | 319.1 |
| Under 1 year[1] | 895 | 383.2 | 953 | 423.6 |
| 1-4 years | 147 | 15.5 | 165 | 18.8 |
| 5-14 years | 228 | 10.9 | 206 | 10.6 |
| 15-24 years | 752 | 37.1 | 722 | 37.1 |
| 25-34 years | 1,048 | 40.4 | 1,125 | 45.0 |
| 35-44 years | 1,908 | 73.7 | 1,772 | 68.0 |
| 45-54 years | 3,841 | 181.4 | 3,725 | 177.7 |
| 55-64 years | 6,317 | 419.3 | 6,124 | 421.6 |
| 65-74 years | 8,485 | 1,035.3 | 8,455 | 1,070.8 |
| 75-84 years | 12,692 | 2,860.5 | 12,426 | 2,868.2 |
| 85 years and over | 13,185 | 8,072.4 | 12,291 | 7,958.5 |
| Not stated | 7 | . . . | 3 | . . . |
| Age-adjusted rate[2] | . . . | 413.2 | . . . | 414.2 |
| API[5] male | | | | |
| All ages | 25,693 | 341.3 | 24,744 | 338.1 |
| Under 1 year[1] | 481 | 402.0 | 536 | 464.2 |
| 1-4 years | 90 | 18.6 | 79 | 17.5 |
| 5-14 years | 122 | 11.5 | 123 | 12.4 |
| 15-24 years | 503 | 48.6 | 500 | 50.1 |
| 25-34 years | 665 | 52.7 | 679 | 55.0 |
| 35-44 years | 1,190 | 94.8 | 1,114 | 87.7 |
| 45-54 years | 2,385 | 236.9 | 2,220 | 223.0 |
| 55-64 years | 3,715 | 536.9 | 3,558 | 530.4 |
| 65-74 years | 4,807 | 1,283.4 | 4,724 | 1,313.4 |
| 75-84 years | 6,237 | 3,445.0 | 6,136 | 3,500.0 |
| 85 years and over | 5,494 | 9,208.1 | 5,073 | 8,742.2 |
| Not stated | 5 | . . . | 2 | . . . |
| Age-adjusted rate[2] | . . . | 498.4 | . . . | 493.4 |
| API[5] female | | | | |
| All ages | 23,815 | 297.7 | 23,222 | 301.0 |
| Under 1 year[1] | 414 | 363.4 | 417 | 380.9 |
| 1-4 years | 57 | 12.2 | 86 | 20.1 |
| 5-14 years | 107 | 10.4 | 83 | 8.6 |
| 15-24 years | 250 | 25.2 | 222 | 23.4 |
| 25-34 years | 384 | 28.9 | 445 | 35.1 |
| 35-44 years | 718 | 53.9 | 658 | 49.3 |
| 45-54 years | 1,456 | 131.2 | 1,505 | 136.7 |
| 55-64 years | 2,602 | 319.5 | 2,566 | 328.2 |
| 65-74 years | 3,678 | 826.4 | 3,731 | 867.9 |
| 75-84 years | 6,455 | 2,457.6 | 6,290 | 2,438.8 |
| 85 years and over | 7,691 | 7,418.7 | 7,218 | 7,486.9 |
| Not stated | 2 | . . . | 1 | . . . |
| Age-adjusted rate[2] | . . . | 348.8 | . . . | 353.5 |

**Table 1. Deaths and death rates by age, sex, race, and Hispanic origin, and age-adjusted death rates, by sex, race, and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

| | 2009 | | 2008 | |
|---|---|---|---|---|
| Age, sex, race, and Hispanic origin | Number | Rate | Number | Rate |
| Hispanic,[6] both sexes | | | | |
| All ages | 140,533 | 290.2 | 140,103 | 298.4 |
| Under 1 year[1] | 5,436 | 492.1 | 5,891 | 531.5 |
| 1-4 years | 1,014 | 23.2 | 1,030 | 24.6 |
| 5-14 years | 1,164 | 13.1 | 1,019 | 12.1 |
| 15-24 years | 5,145 | 65.0 | 5,202 | 69.2 |
| 25-34 years | 6,303 | 77.1 | 6,408 | 78.3 |
| 35-44 years | 8,554 | 121.1 | 8,644 | 123.3 |
| 45-54 years | 15,150 | 293.2 | 14,428 | 289.6 |
| 55-64 years | 19,129 | 638.8 | 18,602 | 651.8 |
| 65-74 years | 22,242 | 1,419.8 | 22,092 | 1,467.3 |
| 75-84 years | 30,240 | 3,474.4 | 30,492 | 3,619.5 |
| 85 years and over | 26,129 | 8,062.6 | 26,283 | 8,390.9 |
| Not stated | 26 | . . . | 11 | . . . |
| Age-adjusted rate[2] | . . . | 519.0 | . . . | 536.0 |
| Hispanic[6] male | | | | |
| All ages | 77,491 | 309.3 | 77,261 | 318.5 |
| Under 1 year[1] | 2,996 | 531.2 | 3,279 | 578.5 |
| 1-4 years | 546 | 24.4 | 588 | 27.5 |
| 5-14 years | 646 | 14.3 | 548 | 12.7 |
| 15-24 years | 3,944 | 94.9 | 4,076 | 103.8 |
| 25-34 years | 4,636 | 102.9 | 4,848 | 107.4 |
| 35-44 years | 5,737 | 151.7 | 5,934 | 159.1 |
| 45-54 years | 9,908 | 374.0 | 9,513 | 374.3 |
| 55-64 years | 11,846 | 816.0 | 11,518 | 835.5 |
| 65-74 years | 12,517 | 1,768.0 | 12,506 | 1,839.4 |
| 75-84 years | 14,769 | 4,070.7 | 14,938 | 4,288.9 |
| 85 years and over | 9,930 | 8,673.7 | 9,502 | 8,475.4 |
| Not stated | 17 | . . . | 11 | . . . |
| Age-adjusted rate[2] | . . . | 618.0 | . . . | 634.8 |
| Hispanic[6] female | | | | |
| All ages | 63,043 | 269.8 | 62,842 | 277.0 |
| Under 1 year[1] | 2,440 | 451.3 | 2,612 | 482.3 |
| 1-4 years | 468 | 21.8 | 442 | 21.6 |
| 5-14 years | 519 | 12.0 | 471 | 11.4 |
| 15-24 years | 1,201 | 31.9 | 1,126 | 31.4 |
| 25-34 years | 1,667 | 45.4 | 1,561 | 42.6 |
| 35-44 years | 2,817 | 85.8 | 2,710 | 82.6 |
| 45-54 years | 5,242 | 208.1 | 4,915 | 201.4 |
| 55-64 years | 7,283 | 472.1 | 7,085 | 480.2 |
| 65-74 years | 9,725 | 1,132.7 | 9,586 | 1,160.9 |
| 75-84 years | 15,472 | 3,048.3 | 15,555 | 3,147.9 |
| 85 years and over | 16,199 | 7,728.8 | 16,780 | 8,343.4 |
| Not stated | 9 | . . . | - | . . . |
| Age-adjusted rate[2] | . . . | 434.3 | . . . | 449.3 |

... Category not applicable.

- Quantity zero.

[1] Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births). See text for additional information on the infant mortality rate.

[2] For method of computation, see "Technical Notes."

[3] AIAN is American Indian or Alaska Native.

[4] Includes deaths among Aleuts and Eskimos.

[5] API is Asian or Pacific Islander.

[6] Includes all persons of Hispanic origin of any race; see "Technical Notes."

NOTE: Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

**Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, Injury at work, and Enterocolitis due to *Clostridium difficile*: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Rates per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Number | Rate | Age-adjusted rate | Number | Rate | Age-adjusted rate |
| All causes | 2,436,652 | 793.7 | 741.0 | 2,472,699 | 813.2 | 758.6 |
| Salmonella infections (A01-A02) | 26 | 0.0 | 0.0 | 43 | 0.0 | 0.0 |
| Shigellosis and amebiasis (A03,A06) | 11 | * | * | 6 | * | * |
| Certain other intestinal infections (A04,A07-A09)[1] | 10,242 | 3.3 | 3.1 | 7,883 | 2.6 | 2.4 |
| Tuberculosis (A16-A19) | 547 | 0.2 | 0.2 | 590 | 0.2 | 0.2 |
| Respiratory tuberculosis (A16) | 422 | 0.1 | 0.1 | 452 | 0.1 | 0.1 |
| Other tuberculosis (A17-A19) | 126 | 0.0 | 0.0 | 138 | 0.0 | 0.0 |
| Whooping cough (A37) | 15 | * | * | 20 | 0.0 | 0.0 |
| Scarlet fever and erysipelas (A38,A46) | 5 | * | * | 3 | * | * |
| Meningococcal infection (A39) | 97 | 0.0 | 0.0 | 102 | 0.0 | 0.0 |
| Septicemia (A40-A41) | 35,587 | 11.6 | 10.9 | 35,961 | 11.8 | 11.1 |
| Syphilis (A50-A53) | 33 | 0.0 | 0.0 | 34 | 0.0 | 0.0 |
| Acute poliomyelitis (A80) | - | * | * | - | * | * |
| Arthropod-borne viral encephalitis (A83-A84,A85.2) | 2 | * | * | 2 | * | * |
| Measles (B05) | 2 | * | * | - | * | * |
| Viral hepatitis (B15-B19) | 7,652 | 2.5 | 2.2 | 7,631 | 2.5 | 2.3 |
| Human immunodeficiency virus (HIV) disease (B20-B24) | 9,424 | 3.1 | 3.0 | 10,295 | 3.4 | 3.3 |
| Malaria (B50-B54) | 4 | * | * | 5 | * | * |
| Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44, A48-A49,A54-A79,A81-A82,A85.0-A85.1,A85.8,A86-B04,B06-B09,B25-B49,B55-B99) | 5,842 | 1.9 | 1.8 | 5,933 | 2.0 | 1.8 |
| Malignant neoplasms (C00-C97) | 568,668 | 185.2 | 173.6 | 566,137 | 186.2 | 175.5 |
| Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) | 7,913 | 2.6 | 2.4 | 8,031 | 2.6 | 2.4 |
| Malignant neoplasm of esophagus (C15) | 13,916 | 4.5 | 4.2 | 13,739 | 4.5 | 4.2 |
| Malignant neoplasm of stomach (C16) | 11,139 | 3.6 | 3.4 | 11,381 | 3.7 | 3.5 |
| Malignant neoplasms of colon, rectum and anus (C18-C21) | 52,462 | 17.1 | 16.0 | 53,337 | 17.5 | 16.5 |
| Malignant neoplasms of liver and intrahepatic bile ducts (C22) | 19,311 | 6.3 | 5.8 | 18,243 | 6.0 | 5.6 |
| Malignant neoplasm of pancreas (C25) | 35,872 | 11.7 | 10.9 | 35,267 | 11.6 | 10.9 |
| Malignant neoplasm of larynx (C32) | 3,633 | 1.2 | 1.1 | 3,759 | 1.2 | 1.2 |
| Malignant neoplasms of trachea, bronchus and lung (C33-C34) | 158,105 | 51.5 | 48.4 | 158,873 | 52.3 | 49.6 |
| Malignant melanoma of skin (C43) | 9,254 | 3.0 | 2.8 | 8,643 | 2.8 | 2.7 |
| Malignant neoplasm of breast (C50) | 41,115 | 13.4 | 12.5 | 41,049 | 13.5 | 12.6 |
| Malignant neoplasm of cervix uteri (C53) | 3,909 | 1.3 | 1.2 | 4,018 | 1.3 | 1.3 |
| Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) | 7,636 | 2.5 | 2.3 | 7,682 | 2.5 | 2.4 |
| Malignant neoplasm of ovary (C56) | 14,513 | 4.7 | 4.4 | 14,373 | 4.7 | 4.4 |
| Malignant neoplasm of prostate (C61) | 28,154 | 9.2 | 8.6 | 28,517 | 9.4 | 8.8 |
| Malignant neoplasms of kidney and renal pelvis (C64-C65) | 13,027 | 4.2 | 3.9 | 12,915 | 4.2 | 4.0 |
| Malignant neoplasm of bladder (C67) | 14,315 | 4.7 | 4.4 | 14,053 | 4.6 | 4.3 |
| Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) | 14,192 | 4.6 | 4.4 | 13,739 | 4.5 | 4.3 |
| Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) | 55,462 | 18.1 | 17.1 | 54,998 | 18.1 | 17.2 |
| Hodgkin's disease (C81) | 1,265 | 0.4 | 0.4 | 1,170 | 0.4 | 0.4 |
| Non-Hodgkin's lymphoma (C82-C85) | 20,361 | 6.6 | 6.3 | 20,374 | 6.7 | 6.3 |
| Leukemia (C91-C95) | 22,697 | 7.4 | 7.0 | 22,357 | 7.4 | 7.0 |
| Multiple myeloma and immunoproliferative neoplasms (C88,C90) | 11,072 | 3.6 | 3.4 | 11,038 | 3.6 | 3.4 |
| Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) | 66 | 0.0 | 0.0 | 59 | 0.0 | 0.0 |
| All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31,C37-C41,C44-C49,C51-C52, C57-C60,C62-C63,C66,C68-C69,C73-C80,C97) | 64,738 | 21.1 | 19.8 | 63,519 | 20.9 | 19.7 |
| In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) | 14,616 | 4.8 | 4.5 | 14,481 | 4.8 | 4.5 |
| Anemias (D50-D64) | 4,652 | 1.5 | 1.4 | 5,033 | 1.7 | 1.5 |
| Diabetes mellitus (E10-E14) | 68,504 | 22.3 | 20.9 | 70,601 | 23.2 | 21.8 |
| Nutritional deficiencies (E40-E64) | 2,836 | 0.9 | 0.8 | 2,981 | 1.0 | 0.9 |
| Malnutrition (E40-E46) | 2,672 | 0.9 | 0.8 | 2,767 | 0.9 | 0.8 |
| Other nutritional deficiencies (E50-E64) | 164 | 0.1 | 0.0 | 214 | 0.1 | 0.1 |
| Meningitis (G00,G03) | 648 | 0.2 | 0.2 | 633 | 0.2 | 0.2 |
| Parkinson's disease (G20-G21) | 20,552 | 6.7 | 6.4 | 20,507 | 6.7 | 6.4 |
| Alzheimer's disease (G30) | 78,889 | 25.7 | 23.4 | 82,476 | 27.1 | 24.4 |
| Major cardiovascular diseases (I00-I78) | 779,367 | 253.9 | 234.4 | 804,899 | 264.7 | 243.6 |
| Diseases of heart (I00-I09,I11,I13,I20-I51) | 598,607 | 195.0 | 179.8 | 617,527 | 203.1 | 186.7 |
| Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) | 3,251 | 1.1 | 1.0 | 3,149 | 1.0 | 1.0 |
| Hypertensive heart disease (I11) | 33,029 | 10.8 | 9.8 | 32,374 | 10.6 | 9.7 |
| Hypertensive heart and renal disease (I13) | 2,880 | 0.9 | 0.9 | 2,867 | 0.9 | 0.9 |
| Ischemic heart diseases (I20-I25) | 385,723 | 125.6 | 115.9 | 405,019 | 133.2 | 122.6 |

**Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, Injury at work, and Enterocolitis due to *Clostridium difficile*: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Rates per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Number | Rate | Age-adjusted rate | Number | Rate | Age-adjusted rate |
| Acute myocardial infarction (I21-I22) | 125,361 | 40.8 | 37.8 | 133,723 | 44.0 | 40.7 |
| Other acute ischemic heart diseases (I24) | 3,953 | 1.3 | 1.2 | 4,233 | 1.4 | 1.3 |
| Other forms of chronic ischemic heart disease (I20,I25) | 256,408 | 83.5 | 76.9 | 267,063 | 87.8 | 80.6 |
| Atherosclerotic cardiovascular disease, so described (I25.0) | 56,731 | 18.5 | 17.0 | 58,517 | 19.2 | 17.6 |
| All other forms of chronic ischemic heart disease (I20,I25.1-I25.9) | 199,677 | 65.0 | 60.0 | 208,545 | 68.6 | 63.0 |
| Other heart diseases (I26-I51) | 173,725 | 56.6 | 52.2 | 174,118 | 57.3 | 52.6 |
| Acute and subacute endocarditis (I33) | 1,164 | 0.4 | 0.4 | 1,179 | 0.4 | 0.4 |
| Diseases of pericardium and acute myocarditis (I30-I31,I40) | 837 | 0.3 | 0.2 | 829 | 0.3 | 0.3 |
| Heart failure (I50) | 56,752 | 18.5 | 16.9 | 57,215 | 18.8 | 17.0 |
| All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) | 114,971 | 37.4 | 34.7 | 114,895 | 37.8 | 34.9 |
| Essential hypertension and hypertensive renal disease (I10,I12,I15) | 25,651 | 8.4 | 7.7 | 25,823 | 8.5 | 7.7 |
| Cerebrovascular diseases (I60-I69) | 128,603 | 41.9 | 38.9 | 133,750 | 44.0 | 40.6 |
| Atherosclerosis (I70) | 7,341 | 2.4 | 2.2 | 7,846 | 2.6 | 2.3 |
| Other diseases of circulatory system (I71-I78) | 19,165 | 6.2 | 5.8 | 19,952 | 6.6 | 6.1 |
| Aortic aneurysm and dissection (I71) | 10,581 | 3.4 | 3.3 | 11,088 | 3.6 | 3.4 |
| Other diseases of arteries, arterioles and capillaries (I72-I78) | 8,584 | 2.8 | 2.6 | 8,864 | 2.9 | 2.7 |
| Other disorders of circulatory system (I80-I99) | 4,044 | 1.3 | 1.2 | 4,034 | 1.3 | 1.2 |
| Influenza and pneumonia (J09-J18)[2] | 53,582 | 17.5 | 16.2 | 56,335 | 18.5 | 17.0 |
| Influenza (J09-J11)[2] | 2,808 | 0.9 | 0.9 | 1,721 | 0.6 | 0.5 |
| Pneumonia (J12-J18) | 50,774 | 16.5 | 15.3 | 54,614 | 18.0 | 16.4 |
| Other acute lower respiratory infections (J20-J22,U04) | 263 | 0.1 | 0.1 | 285 | 0.1 | 0.1 |
| Acute bronchitis and bronchiolitis (J20-J21) | 226 | 0.1 | 0.1 | 235 | 0.1 | 0.1 |
| Other and unspecified acute lower respiratory infections (J22,U04) | 38 | 0.0 | 0.0 | 50 | 0.0 | 0.0 |
| Chronic lower respiratory diseases (J40-J47) | 137,082 | 44.7 | 42.2 | 141,075 | 46.4 | 44.0 |
| Bronchitis, chronic and unspecified (J40-J42) | 636 | 0.2 | 0.2 | 733 | 0.2 | 0.2 |
| Emphysema (J43) | 10,916 | 3.6 | 3.4 | 12,459 | 4.1 | 3.9 |
| Asthma (J45-J46) | 3,345 | 1.1 | 1.0 | 3,395 | 1.1 | 1.0 |
| Other chronic lower respiratory diseases (J44,J47) | 122,185 | 39.8 | 37.6 | 124,489 | 40.9 | 38.8 |
| Pneumoconioses and chemical effects (J60-J66,J68) | 843 | 0.3 | 0.3 | 905 | 0.3 | 0.3 |
| Pneumonitis due to solids and liquids (J69) | 15,928 | 5.2 | 4.8 | 16,622 | 5.5 | 5.0 |
| Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) | 30,655 | 10.0 | 9.4 | 30,000 | 9.9 | 9.3 |
| Peptic ulcer (K25-K28) | 2,937 | 1.0 | 0.9 | 3,070 | 1.0 | 0.9 |
| Diseases of appendix (K35-K38) | 428 | 0.1 | 0.1 | 420 | 0.1 | 0.1 |
| Hernia (K40-K46) | 1,821 | 0.6 | 0.5 | 1,682 | 0.6 | 0.5 |
| Chronic liver disease and cirrhosis (K70,K73-K74) | 30,444 | 9.9 | 9.2 | 29,963 | 9.9 | 9.2 |
| Alcoholic liver disease (K70) | 15,107 | 4.9 | 4.5 | 14,859 | 4.9 | 4.5 |
| Other chronic liver disease and cirrhosis (K73-K74) | 15,338 | 5.0 | 4.6 | 15,104 | 5.0 | 4.6 |
| Cholelithiasis and other disorders of gallbladder (K80-K82) | 3,286 | 1.1 | 1.0 | 3,425 | 1.1 | 1.0 |
| Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) | 48,714 | 15.9 | 14.8 | 48,283 | 15.9 | 14.8 |
| Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04) | 163 | 0.1 | 0.0 | 165 | 0.1 | 0.0 |
| Chronic glomerulonephritis, nephrosis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified (N02-N03,N05-N07,N26) | 4,897 | 1.6 | 1.5 | 4,120 | 1.4 | 1.2 |
| Renal failure (N17-N19) | 43,628 | 14.2 | 13.3 | 43,965 | 14.5 | 13.5 |
| Other disorders of kidney (N25,N27) | 25 | 0.0 | 0.0 | 33 | 0.0 | 0.0 |
| Infections of kidney (N10-N12,N13.6,N15.1) | 602 | 0.2 | 0.2 | 629 | 0.2 | 0.2 |
| Hyperplasia of prostate (N40) | 438 | 0.1 | 0.1 | 504 | 0.2 | 0.1 |
| Inflammatory diseases of female pelvic organs (N70-N76) | 138 | 0.0 | 0.0 | 133 | 0.0 | 0.0 |
| Pregnancy, childbirth and the puerperium (O00-099) | 873 | 0.3 | 0.3 | 774 | 0.3 | 0.3 |
| Pregnancy with abortive outcome (O00-O07) | 34 | 0.0 | 0.0 | 34 | 0.0 | 0.0 |
| Other complications of pregnancy, childbirth and the puerperium (O10-O99) | 839 | 0.3 | 0.3 | 739 | 0.2 | 0.2 |
| Certain conditions originating in the perinatal period (P00-P96) | 13,114 | 4.3 | 4.2 | 13,889 | 4.6 | 4.4 |
| Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 9,927 | 3.2 | 3.2 | 10,284 | 3.4 | 3.3 |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) | 43,076 | 14.0 | 13.1 | 38,455 | 12.6 | 11.7 |
| All other diseases (Residual) | 252,241 | 82.2 | 75.8 | 252,706 | 83.1 | 76.4 |
| Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 117,176 | 38.2 | 37.0 | 121,207 | 39.9 | 38.6 |
| Transport accidents (V01-V99,Y85) | 39,057 | 12.7 | 12.6 | 42,742 | 14.1 | 13.9 |
| Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 36,284 | 11.8 | 11.7 | 39,831 | 13.1 | 12.9 |
| Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2,V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9,V88.9,V89.1,V89.3,V89.9) | 991 | 0.3 | 0.3 | 1,146 | 0.4 | 0.4 |
| Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) | 1,782 | 0.6 | 0.6 | 1,765 | 0.6 | 0.6 |
| Nontransport accidents (W00-X59,Y86) | 78,118 | 25.4 | 24.5 | 78,465 | 25.8 | 24.7 |

**Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, Injury at work, and Enterocolitis due to *Clostridium difficile*: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records received from the states. Rates per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Number | Rate | Age-adjusted rate | Number | Rate | Age-adjusted rate |
| Falls (W00-W19) | 24,834 | 8.1 | 7.5 | 24,062 | 7.9 | 7.3 |
| Accidental discharge of firearms (W32-W34) | 588 | 0.2 | 0.2 | 587 | 0.2 | 0.2 |
| Accidental drowning and submersion (W65-W74) | 3,539 | 1.2 | 1.1 | 3,549 | 1.2 | 1.2 |
| Accidental exposure to smoke, fire and flames (X00-X09) | 2,751 | 0.9 | 0.8 | 2,907 | 1.0 | 0.9 |
| Accidental poisoning and exposure to noxious substances (X40-X49) | 30,504 | 9.9 | 9.9 | 30,306 | 10.0 | 9.9 |
| Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99,X10-X39,X50-X59,Y86) | 15,902 | 5.2 | 4.9 | 17,054 | 5.6 | 5.3 |
| Intentional self-harm (suicide) (*U03,X60-X84,Y87.0) | 36,547 | 11.9 | 11.7 | 35,933 | 11.8 | 11.6 |
| Intentional self-harm (suicide) by discharge of firearms (X72-X74) | 18,689 | 6.1 | 5.9 | 18,251 | 6.0 | 5.8 |
| Intentional self-harm (suicide) by other and unspecified means and their sequelae (*U03,X60-X71,X75-X84,Y87.0) | 17,859 | 5.8 | 5.8 | 17,681 | 5.8 | 5.7 |
| Assault (homicide) (*U01-*U02,X85-Y09,Y87.1) | 16,591 | 5.4 | 5.5 | 17,837 | 5.9 | 5.9 |
| Assault (homicide) by discharge of firearms (*U01.4,X93-X95) | 11,406 | 3.7 | 3.8 | 12,209 | 4.0 | 4.0 |
| Assault (homicide) by other and unspecified means and their sequelae (*U01.0-*U01.3,*U01.5-*U01.9,*U02,X85-X92,X96-Y09,Y87.1) | 5,185 | 1.7 | 1.7 | 5,628 | 1.9 | 1.8 |
| Legal intervention (Y35,Y89.0) | 372 | 0.1 | 0.1 | 380 | 0.1 | 0.1 |
| Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) | 4,730 | 1.5 | 1.5 | 4,979 | 1.6 | 1.6 |
| Discharge of firearms, undetermined intent (Y22-Y24) | 230 | 0.1 | 0.1 | 276 | 0.1 | 0.1 |
| Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) | 4,500 | 1.5 | 1.5 | 4,703 | 1.5 | 1.5 |
| Operations of war and their sequelae (Y36,Y89.1) | 25 | 0.0 | 0.0 | 31 | 0.0 | 0.0 |
| Complications of medical and surgical care (Y40-Y84,Y88) | 2,550 | 0.8 | 0.8 | 2,602 | 0.9 | 0.8 |
| Injury by firearms (*U01.4,W32-W34,X72-X74,X93-X95,Y22-Y24,Y35.0)[3] | 31,228 | 10.2 | 10.0 | 31,651 | 10.4 | 10.3 |
| Drug-induced deaths (D52.1,D59.0,D59.2,D61.1,D64.2,E06.4,E16.0,E23.1,E24.2,E27.3,E66.1,F11.0-F11.5,F11.7-F11.9,F12.0-F12.5,F12.7-F12.9,F13.0-F13.5,F13.7-F13.9,F14.0-F14.5,F14.7-F14.9,F15.0-F15.5,F15.7-F15.9,F16.0-F16.5,F16.7-F16.9,F17.0,F17.3-F17.5,F17.7-F17.9,F18.0-F18.5,F18.7-18.9, F19.0-F19.5,F19.7-F19.9,G21.1,G24.0,G25.1,G25.4,G25.6,G44.4,G62.0,G72.0,I95.2,J70.2-J70.4, K85.3,L10.5,L27.0-L27.1,M10.2,M32.0,M80.4,M81.4,M83.5,M87.1,R50.2,R78.1-R78.5,X40-X44, X60-X64,X85,Y10-14)[3] | 37,485 | 12.2 | 12.1 | 37,777 | 12.4 | 12.3 |
| Alcohol-induced deaths (E24.4,F10,G31.2,G62.1,G72.1,I42.6,K29.2,K70,K85.2,K86.0,R78.0,X45,X65,Y15)[3] | 24,263 | 7.9 | 7.3 | 24,081 | 7.9 | 7.4 |
| Injury at work[4] | 4,108 | 1.7 | 1.7 | 4,689 | 1.9 | 1.9 |
| Enterocolitis due to *Clostridium difficile* (A04.7)[5] | 7,285 | 2.4 | 2.2 | 7,483 | 2.5 | 2.3 |

0.0 Quantity more than zero but less than 0.05.

* Figure does not meet standards of reliability or precision; see "Technical Notes."

- Quantity zero.

[1]Expanded ICD-10 code A09 (Diarrhea and gastroenteritis of infectious origin) was added to the category in 2009; see "Technical Notes."

[2]Expanded ICD-10 code J09 (Influenza due to certain identified influenza virus) was added to the category in 2009; see "Technical Notes."

[3]Included in selected categories above.

[4]Injury at work is described in "Technical Notes."

[5]Included in "Certain other intestinal infections (A04,A07-A09)" shown above; see "Technical Notes."

NOTES: For certain causes of death such as unintentional injuries, homicides, suicides, and respiratory diseases, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

**Table 3. Deaths, death rates, and age-adjusted death rates: United States, and each state and territory, preliminary 2008 and 2009**

[By place of residence. Data are based on a continuous file of records received from the states. Rates are per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals]

| Area | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Number | Rate | Age-adjusted rate | Number | Rate | Age-adjusted rate |
| United States[1] | 2,436,652 | 793.7 | 740.9 | 2,473,018 | 813.3 | 758.7 |
| Alabama | 47,428 | 1,007.2 | 920.3 | 47,712 | 1,023.4 | 930.3 |
| Alaska | 3,616 | 517.7 | 754.3 | 3,483 | 507.5 | 739.6 |
| Arizona | 45,839 | 695.0 | 652.9 | 45,610 | 701.7 | 650.6 |
| Arkansas | 28,669 | 992.2 | 874.4 | 29,310 | 1,026.5 | 899.2 |
| California | 232,767 | 629.8 | 652.2 | 234,229 | 637.2 | 658.8 |
| Colorado | 31,170 | 620.3 | 688.0 | 31,256 | 632.8 | 708.6 |
| Connecticut | 28,513 | 810.4 | 682.3 | 28,797 | 822.5 | 691.4 |
| Delaware | 7,535 | 851.3 | 753.6 | 7,623 | 873.1 | 780.8 |
| District of Columbia | 4,761 | 794.0 | 801.5 | 5,139 | 868.3 | 849.9 |
| Florida | 169,843 | 916.2 | 673.4 | 170,668 | 931.2 | 679.0 |
| Georgia[2] | --- | --- | --- | 69,942 | 722.1 | 835.4 |
| Hawaii | 9,916 | 765.6 | 619.8 | 9,475 | 735.5 | 589.0 |
| Idaho | 11,097 | 717.9 | 721.2 | 10,942 | 718.1 | 721.7 |
| Illinois | 99,994 | 774.5 | 743.0 | 103,615 | 803.1 | 772.0 |
| Indiana | 55,956 | 871.2 | 815.5 | 56,743 | 889.8 | 835.1 |
| Iowa | 27,553 | 916.0 | 724.8 | 28,533 | 950.3 | 744.0 |
| Kansas | 24,014 | 851.9 | 759.9 | 24,969 | 891.1 | 784.7 |
| Kentucky | 41,350 | 958.5 | 897.8 | 41,280 | 966.9 | 901.2 |
| Louisiana | 40,246 | 895.9 | 887.5 | 41,217 | 934.5 | 922.0 |
| Maine | 12,575 | 953.9 | 755.9 | 12,531 | 951.9 | 764.1 |
| Maryland | 43,907 | 770.4 | 763.8 | 43,885 | 779.0 | 771.6 |
| Massachusetts | 52,375 | 794.3 | 681.0 | 53,521 | 823.7 | 705.9 |
| Michigan | 86,472 | 867.3 | 786.1 | 88,418 | 883.9 | 811.7 |
| Minnesota | 37,845 | 718.6 | 651.7 | 38,487 | 737.2 | 675.2 |
| Mississippi | 28,282 | 958.1 | 926.3 | 28,980 | 986.2 | 950.0 |
| Missouri | 54,251 | 906.1 | 804.4 | 56,566 | 956.9 | 847.0 |
| Montana | 8,723 | 894.7 | 757.3 | 8,903 | 920.3 | 785.9 |
| Nebraska | 14,811 | 824.4 | 716.1 | 15,455 | 866.6 | 741.1 |
| Nevada[3] | 19,224 | 727.3 | 786.3 | 20,790 | 799.6 | 868.2 |
| New Hampshire | 10,088 | 761.6 | 676.5 | 10,268 | 780.4 | 712.5 |
| New Jersey | 68,277 | 784.1 | 694.8 | 69,993 | 806.1 | 716.8 |
| New Mexico | 15,662 | 779.3 | 740.3 | 15,996 | 806.1 | 758.2 |
| New York | 146,161 | 748.0 | 665.5 | 148,660 | 762.7 | 675.8 |
| North Carolina | 77,121 | 822.1 | 800.7 | 77,277 | 837.9 | 825.6 |
| North Dakota | 5,915 | 914.4 | 719.3 | 5,870 | 915.1 | 713.0 |
| Ohio | 107,156 | 928.3 | 813.5 | 109,749 | 955.5 | 844.0 |
| Oklahoma | 35,598 | 965.5 | 890.5 | 37,061 | 1,017.5 | 932.2 |
| Oregon | 31,635 | 826.9 | 733.1 | 31,939 | 842.7 | 747.9 |
| Pennsylvania | 124,813 | 990.2 | 771.0 | 127,450 | 1,023.8 | 796.5 |
| Rhode Island | 9,387 | 891.3 | 716.8 | 9,740 | 926.9 | 749.6 |
| South Carolina | 40,313 | 883.8 | 815.2 | 40,305 | 899.7 | 839.7 |
| South Dakota | 6,922 | 852.1 | 689.1 | 7,080 | 880.4 | 708.4 |
| Tennessee | 58,301 | 926.0 | 867.4 | 58,882 | 947.4 | 889.7 |
| Texas | 163,266 | 658.8 | 754.4 | 165,197 | 679.1 | 777.3 |
| Utah | 14,141 | 507.8 | 658.8 | 13,991 | 511.3 | 656.9 |
| Vermont | 5,029 | 808.8 | 680.9 | 5,213 | 839.1 | 722.2 |
| Virginia | 58,660 | 744.2 | 749.4 | 59,093 | 760.6 | 762.6 |
| Washington | 48,263 | 724.2 | 709.7 | 48,603 | 742.1 | 723.3 |
| West Virginia | 21,381 | 1,174.9 | 949.6 | 21,549 | 1,187.6 | 958.1 |
| Wisconsin | 45,691 | 808.0 | 708.8 | 46,799 | 831.5 | 729.7 |
| Wyoming | 4,284 | 787.1 | 776.4 | 4,222 | 792.6 | 772.5 |

**Table 3. Deaths, death rates, and age-adjusted death rates: United States, and each state and territory, preliminary 2008 and 2009**

[By place of residence. Data are based on a continuous file of records received from the states. Rates are per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals]

| Area | 2009 | | | 2008 | | |
|---|---|---|---|---|---|---|
| | Number | Rate | Age-adjusted rate | Number | Rate | Age-adjusted rate |
| Puerto Rico | 28,874 | 727.8 | 683.6 | 28,781 | 727.9 | 700.4 |
| Virgin Islands | --- | --- | --- | 699 | 636.4 | 682.9 |
| Guam | --- | --- | --- | 762 | 433.0 | 683.1 |
| American Samoa | 310 | 472.4 | 1,216.9 | 241 | 371.8 | 958.9 |
| Northern Marianas | 194 | 376.8 | 901.7 | 175 | 316.8 | 833.0 |

--- Data not available.

[1]Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas.

[2]Georgia data are not shown separately but are included in the U.S. total because the percent completeness did not meet the criterion of at least 75 percent of the state's demographic file for the 12-month period; see "Technical Notes."

[3]For 2008, data for Nevada are based on the state of occurrence due to the lack of geographic code for the state, see "Technical Notes."

NOTE: Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

**Table 4. Infant deaths and infant mortality rates, by age, race and Hispanic origin: United States, preliminary 2008 and 2009**

[Data are based on the continuous file of records received from the states. Rates per 1,000 live births. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on both the birth and death certificate. Rates for Hispanic origin should be interpreted with caution because of the inconsistencies between reporting Hispanic origin on birth and death certificates; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported for deaths by 34 states and the District of Columbia in 2009 and 2008, and were reported for births, by 32 states and the District of Columbia in 2009 and by 30 states in 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes"]

| Age, race, and Hispanic origin | 2009 | | 2008 | |
|---|---|---|---|---|
| | Number | Rate | Number | Rate |
| All races[1] | | | | |
| Under 1 year | 26,531 | 6.42 | 28,033 | 6.59 |
| Under 28 days | 17,298 | 4.19 | 18,154 | 4.27 |
| 28 days - 11 months | 9,233 | 2.24 | 9,879 | 2.32 |
| Total white | | | | |
| Under 1 year | 16,897 | 5.32 | 18,162 | 5.54 |
| Under 28 days | 11,083 | 3.49 | 11,820 | 3.61 |
| 28 days - 11 months | 5,814 | 1.83 | 6,343 | 1.94 |
| Non-Hispanic white | | | | |
| Under 1 year | 11,658 | 5.27 | 12,545 | 5.52 |
| Under 28 days | 7,595 | 3.43 | 8,022 | 3.53 |
| 28 days - 11 months | 4,063 | 1.84 | 4,522 | 1.99 |
| Total black | | | | |
| Under 1 year | 8,356 | 12.71 | 8,513 | 12.68 |
| Under 28 days | 5,393 | 8.20 | 5,483 | 8.17 |
| 28 days - 11 months | 2,964 | 4.51 | 3,030 | 4.51 |
| Hispanic[2] | | | | |
| Under 1 year | 5,436 | 5.44 | 5,891 | 5.67 |
| Under 28 days | 3,619 | 3.62 | 3,959 | 3.81 |
| 28 days - 11 months | 1,817 | 1.82 | 1,932 | 1.86 |

[1] Includes races other than white and black.

[2] Includes all persons of Hispanic origin of any race; see "Technical Notes."

NOTES: Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes." Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, another measure of infant mortality, the infant death rate, is shown elsewhere in this report. The two measures typically are similar, yet they can differ because the denominators used for these measures are different. For more information on these measures of risk, see section "Infant mortality" in the "Technical Notes."

**Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records from the states. Rates per 100,000 live births. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) | 2009 | | 2008 | |
|---|---|---|---|---|
| | Number | Rate | Number | Rate |
| All causes | 26,526 | 642.1 | 28,029 | 659.3 |
| | | | | |
| Certain infectious and parasitic diseases (A00-B99)[1] | 735 | 17.8 | 485 | 11.4 |
| Certain intestinal infectious diseases (A00-A08) | 11 | * | 12 | * |
| Diarrhea and gastroenteritis of infectious origin (A09)[1] | 328 | 7.9 | - | * |
| Tuberculosis (A16-A19) | 1 | * | - | * |
| Tetanus (A33,A35) | - | * | - | * |
| Diphtheria (A36) | - | * | - | * |
| Whooping cough (A37) | 15 | * | 18 | * |
| Meningococcal infection (A39) | 10 | * | 9 | * |
| Septicemia (A40-A41) | 234 | 5.7 | 293 | 6.9 |
| Congenital syphilis (A50) | - | * | - | * |
| Gonococcal infection (A54) | - | * | - | * |
| Viral diseases (A80-B34) | 98 | 2.4 | 102 | 2.4 |
| Acute poliomyelitis (A80) | - | * | - | * |
| Varicella (chickenpox) (B01) | - | * | - | * |
| Measles (B05) | - | * | - | * |
| Human immunodeficiency virus (HIV) disease (B20-B24) | 1 | * | - | * |
| Mumps (B26) | - | * | - | * |
| Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34) | 97 | 2.3 | 102 | 2.4 |
| Candidiasis (B37) | 8 | * | 7 | * |
| Malaria (B50-B54) | 1 | * | - | * |
| Pneumocystosis (B59) | - | * | 3 | * |
| All other and unspecified infectious and parasitic diseases (A20-A32,A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99) | 27 | 0.7 | 40 | 0.9 |
| Neoplasms (C00-D48) | 148 | 3.6 | 128 | 3.0 |
| Malignant neoplasms (C00-C97) | 87 | 2.1 | 68 | 1.6 |
| Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85) | - | * | 1 | * |
| Leukemia (C91-C95) | 28 | 0.7 | 27 | 0.6 |
| Other and unspecified malignant neoplasms (C00-C80,C88,C90,C96-C97) | 60 | 1.5 | 39 | 0.9 |
| In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) | 61 | 1.5 | 60 | 1.4 |
| Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89) | 89 | 2.2 | 81 | 1.9 |
| Anemias (D50-D64) | 12 | * | 15 | * |
| Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65-D76) | 62 | 1.5 | 56 | 1.3 |
| Certain disorders involving the immune mechanism (D80-D89) | 14 | * | 9 | * |
| Endocrine, nutritional and metabolic diseases (E00-E88) | 209 | 5.1 | 247 | 5.8 |
| Short stature, not elsewhere classified (E34.3) | 3 | * | 9 | * |
| Nutritional deficiencies (E40-E64) | 3 | * | 9 | * |
| Cystic fibrosis (E84) | 7 | * | 4 | * |
| Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87) | 45 | 1.1 | 80 | 1.9 |
| All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88) | 151 | 3.7 | 145 | 3.4 |
| Diseases of the nervous system (G00-G98) | 340 | 8.2 | 414 | 9.7 |
| Meningitis (G00,G03) | 59 | 1.4 | 67 | 1.6 |
| Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0) | 13 | * | 5 | * |
| Infantile cerebral palsy (G80) | 7 | * | 8 | * |
| Anoxic brain damage, not elsewhere classified (G93.1) | 38 | 0.9 | 51 | 1.2 |
| Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98) | 223 | 5.4 | 283 | 6.7 |
| Diseases of the ear and mastoid process (H60-H93) | 2 | * | 6 | * |
| Diseases of the circulatory system (I00-I99) | 565 | 13.7 | 590 | 13.9 |
| Pulmonary heart disease and diseases of pulmonary circulation (I26-I28) | 105 | 2.5 | 88 | 2.1 |
| Pericarditis, endocarditis and myocarditis (I30,I33,I40) | 16 | * | 19 | * |
| Cardiomyopathy (I42) | 110 | 2.7 | 114 | 2.7 |
| Cardiac arrest (I46) | 27 | 0.7 | 25 | 0.6 |
| Cerebrovascular diseases (I60-I69) | 129 | 3.1 | 144 | 3.4 |
| All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51,I70-I99) | 177 | 4.3 | 201 | 4.7 |
| Diseases of the respiratory system (J00-J98,U04)[2] | 584 | 14.1 | 578 | 13.6 |
| Acute upper respiratory infections (J00-J06) | 10 | * | 12 | * |
| Influenza and pneumonia (J09-J18)[2] | 238 | 5.8 | 225 | 5.3 |
| Influenza (J09-J11)[2] | 28 | 0.7 | 16 | * |
| Pneumonia (J12-J18) | 210 | 5.1 | 208 | 4.9 |
| Acute bronchitis and acute bronchiolitis (J20-J21) | 46 | 1.1 | 43 | 1.0 |
| Bronchitis, chronic and unspecified (J40-J42) | 13 | * | 22 | 0.5 |

**Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records from the states. Rates per 100,000 live births. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) | 2009 | | 2008 | |
|---|---|---|---|---|
| | Number | Rate | Number | Rate |
| Other and unspecified diseases of respiratory system (J22,J30-J39,J43-J44,J47-J68,J70-J98,U04) | 267 | 6.5 | 260 | 6.1 |
| Diseases of the digestive system (K00-K92) | 229 | 5.5 | 578 | 13.6 |
| Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50-K55) | 33 | 0.8 | 355 | 8.4 |
| Hernia of abdominal cavity and intestinal obstruction without hernia (K40-K46,K56) | 50 | 1.2 | 47 | 1.1 |
| All other and unspecified diseases of digestive system (K00-K28,K30-K38,K57-K92) | 147 | 3.6 | 175 | 4.1 |
| Diseases of the genitourinary system (N00-N95) | 124 | 3.0 | 172 | 4.0 |
| Renal failure and other disorders of kidney (N17-N19,N25,N27) | 103 | 2.5 | 140 | 3.3 |
| Other and unspecified diseases of genitourinary system (N00-N15,N20-N23,N26,N28-N95) | 21 | 0.5 | 32 | 0.8 |
| Certain conditions originating in the perinatal period (P00-P96) | 12,981 | 314.2 | 13,738 | 323.2 |
| Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00-P04) | 2,914 | 70.5 | 3,153 | 74.2 |
| Newborn affected by maternal hypertensive disorders (P00.0) | 82 | 2.0 | 84 | 2.0 |
| Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1-P00.9) | 90 | 2.2 | 89 | 2.1 |
| Newborn affected by maternal complications of pregnancy (P01) | 1,586 | 38.4 | 1,764 | 41.5 |
| Newborn affected by incompetent cervix (P01.0) | 423 | 10.2 | 447 | 10.5 |
| Newborn affected by premature rupture of membranes (P01.1) | 778 | 18.8 | 840 | 19.8 |
| Newborn affected by multiple pregnancy (P01.5) | 198 | 4.8 | 257 | 6.0 |
| Newborn affected by other maternal complications of pregnancy (P01.2-P01.4,P01.6-P01.9) | 187 | 4.5 | 220 | 5.2 |
| Newborn affected by complications of placenta, cord and membranes (P02) | 1,022 | 24.7 | 1,073 | 25.2 |
| Newborn affected by complications involving placenta (P02.0-P02.3) | 498 | 12.1 | 531 | 12.5 |
| Newborn affected by complications involving cord (P02.4-P02.6) | 40 | 1.0 | 55 | 1.3 |
| Newborn affected by chorioamnionitis (P02.7) | 483 | 11.7 | 486 | 11.4 |
| Newborn affected by other and unspecified abnormalities of membranes (P02.8-P02.9) | 1 | * | 1 | * |
| Newborn affected by other complications of labor and delivery (P03) | 109 | 2.6 | 95 | 2.2 |
| Newborn affected by noxious influences transmitted via placenta or breast milk (P04) | 26 | 0.6 | 48 | 1.1 |
| Disorders related to length of gestation and fetal malnutrition (P05-P08) | 4,568 | 110.6 | 4,816 | 113.3 |
| Slow fetal growth and fetal malnutrition (P05) | 106 | 2.6 | 83 | 2.0 |
| Disorders related to short gestation and low birth weight, not elsewhere classified (P07) | 4,463 | 108.0 | 4,733 | 111.3 |
| Extremely low birth weight or extreme immaturity (P07.0,P07.2) | 3,399 | 82.3 | 3,636 | 85.5 |
| Other low birth weight or preterm (P07.1,P07.3) | 1,064 | 25.8 | 1,097 | 25.8 |
| Disorders related to long gestation and high birth weight (P08) | - | * | - | * |
| Birth trauma (P10-P15) | 17 | * | 18 | * |
| Intrauterine hypoxia and birth asphyxia (P20-P21) | 342 | 8.3 | 382 | 9.0 |
| Intrauterine hypoxia (P20) | 139 | 3.4 | 144 | 3.4 |
| Birth asphyxia (P21) | 203 | 4.9 | 238 | 5.6 |
| Respiratory distress of newborn (P22) | 587 | 14.2 | 625 | 14.7 |
| Other respiratory conditions originating in the perinatal period (P23-P28) | 964 | 23.3 | 1,102 | 25.9 |
| Congenital pneumonia (P23) | 101 | 2.4 | 74 | 1.7 |
| Neonatal aspiration syndromes (P24) | 40 | 1.0 | 58 | 1.4 |
| Interstitial emphysema and related conditions originating in the perinatal period (P25) | 113 | 2.7 | 121 | 2.8 |
| Pulmonary hemorrhage originating in the perinatal period (P26) | 162 | 3.9 | 199 | 4.7 |
| Chronic respiratory disease originating in the perinatal period (P27) | 180 | 4.4 | 239 | 5.6 |
| Atelectasis (P28.0-P28.1) | 297 | 7.2 | 334 | 7.9 |
| All other respiratory conditions originating in the perinatal period (P28.2-P28.9) | 72 | 1.7 | 77 | 1.8 |
| Infections specific to the perinatal period (P35-P39) | 858 | 20.8 | 896 | 21.1 |
| Bacterial sepsis of newborn (P36) | 682 | 16.5 | 696 | 16.4 |
| Omphalitis of newborn with or without mild hemorrhage (P38) | 4 | * | 2 | * |
| All other infections specific to the perinatal period (P35,P37,P39) | 172 | 4.2 | 198 | 4.7 |
| Hemorrhagic and hematological disorders of newborn (P50-P61) | 644 | 15.6 | 642 | 15.1 |
| Neonatal hemorrhage (P50-P52,P54) | 537 | 13.0 | 551 | 13.0 |
| Hemorrhagic disease of newborn (P53) | 1 | * | 2 | * |
| Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55-P59) | 14 | * | 10 | * |
| Hematological disorders (P60-P61) | 91 | 2.2 | 78 | 1.8 |
| Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0-P70.2) | 11 | * | 11 | * |
| Necrotizing enterocolitis of newborn (P77) | 505 | 12.2 | 547 | 12.9 |
| Hydrops fetalis not due to hemolytic disease (P83.2) | 185 | 4.5 | 170 | 4.0 |
| Other perinatal conditions (P29,P70.3-P76,P78-P81,P83.0-P83.1,P83.3-P96) | 1,385 | 33.5 | 1,375 | 32.3 |
| Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 5,358 | 129.7 | 5,647 | 132.8 |
| Anencephaly and similar malformations (Q00) | 318 | 7.7 | 340 | 8.0 |
| Congenital hydrocephalus (Q03) | 114 | 2.8 | 104 | 2.4 |
| Spina bifida (Q05) | 21 | 0.5 | 22 | 0.5 |
| Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07) | 321 | 7.8 | 356 | 8.4 |
| Congenital malformations of heart (Q20-Q24) | 1,232 | 29.8 | 1,307 | 30.7 |
| Other congenital malformations of circulatory system (Q25-Q28) | 181 | 4.4 | 219 | 5.2 |
| Congenital malformations of respiratory system (Q30-Q34) | 387 | 9.4 | 378 | 8.9 |

**Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records from the states. Rates per 100,000 live births. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) | 2009 | | 2008 | |
|---|---|---|---|---|
| | Number | Rate | Number | Rate |
| Congenital malformations of digestive system (Q35-Q45) | 66 | 1.6 | 85 | 2.0 |
| Congenital malformations of genitourinary system (Q50-Q64) | 488 | 11.8 | 516 | 12.1 |
| Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85) | 583 | 14.1 | 665 | 15.6 |
| Down's syndrome (Q90) | 80 | 1.9 | 87 | 2.0 |
| Edward's syndrome (Q91.0-Q91.3) | 530 | 12.8 | 556 | 13.1 |
| Patau's syndrome (Q91.4-Q91.7) | 247 | 6.0 | 278 | 6.5 |
| Other congenital malformations and deformations (Q10-Q18,Q86-Q89) | 575 | 13.9 | 535 | 12.6 |
| Other chromosomal abnormalities, not elsewhere classified (Q92-Q99) | 214 | 5.2 | 200 | 4.7 |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) | 3,510 | 85.0 | 3,582 | 84.3 |
| Sudden infant death syndrome (R95) | 2,168 | 52.5 | 2,292 | 53.9 |
| Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R53,R55-R94,R96-R99) | 1,342 | 32.5 | 1,290 | 30.3 |
| All other diseases (Residual) | 31 | 0.8 | 34 | 0.8 |
| External causes of mortality (*U01,V01-Y84) | 1,620 | 39.2 | 1,750 | 41.2 |
| Accidents (unintentional injuries) (V01-X59) | 1,158 | 28.0 | 1,299 | 30.6 |
| Transport accidents (V01-V99) | 108 | 2.6 | 105 | 2.5 |
| Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 106 | 2.6 | 104 | 2.4 |
| Other and unspecified transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2,V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9,V88.9,V89.1,V89.3,V89.9,V90-V99) | 2 | * | 1 | * |
| Falls (W00-W19) | 28 | 0.7 | 19 | * |
| Accidental discharge of firearms (W32-W34) | - | * | - | * |
| Accidental drowning and submersion (W65-W74) | 41 | 1.0 | 37 | 0.9 |
| Accidental suffocation and strangulation in bed (W75) | 638 | 15.4 | 730 | 17.2 |
| Other accidental suffocation and strangulation (W76-W77,W81-W84) | 192 | 4.6 | 249 | 5.9 |
| Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78-W80) | 51 | 1.2 | 60 | 1.4 |
| Accidents caused by exposure to smoke, fire and flames (X00-X09) | 24 | 0.6 | 19 | * |
| Accidental poisoning and exposure to noxious substances (X40-X49) | 12 | * | 11 | * |
| Other and unspecified accidents (W20-W31,W35-W64,W85-W99,X10-X39,X50-X59) | 64 | 1.5 | 67 | 1.6 |
| Assault (homicide) (*U01,X85-Y09) | 327 | 7.9 | 337 | 7.9 |
| Assault (homicide) by hanging, strangulation and suffocation (X91) | 23 | 0.6 | 31 | 0.7 |
| Assault (homicide) by discharge of firearms (*U01.4,X93-X95) | 24 | 0.6 | 8 | * |
| Neglect, abandonment and other maltreatment syndromes (Y06-Y07) | 88 | 2.1 | 99 | 2.3 |
| Assault (homicide) by other and unspecified means (*U01.0-*U01.3,*U01.5-*U01.9,X85-X90,X92,X96-X99,Y00-Y05,Y08-Y09) | 192 | 4.6 | 199 | 4.7 |
| Complications of medical and surgical care (Y40-Y84) | 18 | * | 23 | 0.5 |
| Other external causes (Y10-Y36) | 117 | 2.8 | 91 | 2.1 |

* Figure does not meet standards of reliability or precision; see "Technical Notes."

\- Quantity zero.

[1]Expanded ICD-10 code A09 (Diarrhea and gastroenteritis of infectious origin) was added to the category in 2009; see "Technical Notes."

[2]Expanded ICD-10 code J09 (Influenza due to certain identified influenza virus) was added to the category in 2009; see "Technical Notes."

NOTES: For certain causes of death such as unintentional injuries, homicides, suicides, and respiratory diseases, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes." Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, another measure of infant mortality, the infant death rate, is shown elsewhere in this report. The two measures typically are similar, yet they can differ because the denominators used for these measures are different. For more information on these measures of risk, see section "Infant mortality" in the "Technical Notes."

**Table 6. Expectation of life by age, race, and sex: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records from the states. Calculations of life expectancy employ populations estimated as of July 1 for 2009 and 2008; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes"]

| | Both sexes | | Male | | Female | |
|---|---|---|---|---|---|---|
| Age (years) and race | 2009 | 2008[1] | 2009 | 2008[1] | 2009 | 2008[1] |
| All races[2] | | | | | | |
| 0 | 78.2 | 78.0 | 75.7 | 75.5 | 80.6 | 80.5 |
| 1 | 77.7 | 77.6 | 75.3 | 75.1 | 80.0 | 80.0 |
| 5 | 73.8 | 73.7 | 71.4 | 71.2 | 76.1 | 76.1 |
| 10 | 68.8 | 68.7 | 66.4 | 66.2 | 71.2 | 71.1 |
| 15 | 63.9 | 63.8 | 61.5 | 61.3 | 66.2 | 66.1 |
| 20 | 59.0 | 58.9 | 56.7 | 56.5 | 61.3 | 61.2 |
| 25 | 54.3 | 54.2 | 52.0 | 51.9 | 56.4 | 56.4 |
| 30 | 49.5 | 49.4 | 47.3 | 47.2 | 51.6 | 51.5 |
| 35 | 44.8 | 44.7 | 42.7 | 42.6 | 46.8 | 46.7 |
| 40 | 40.1 | 40.0 | 38.0 | 37.9 | 42.0 | 41.9 |
| 45 | 35.5 | 35.4 | 33.5 | 33.4 | 37.3 | 37.2 |
| 50 | 31.1 | 31.0 | 29.1 | 29.0 | 32.8 | 32.7 |
| 55 | 26.8 | 26.7 | 25.0 | 24.9 | 28.4 | 28.3 |
| 60 | 22.7 | 22.6 | 21.1 | 20.9 | 24.1 | 24.0 |
| 65 | 18.8 | 18.7 | 17.3 | 17.2 | 20.0 | 19.9 |
| 70 | 15.1 | 15.0 | 13.8 | 13.7 | 16.1 | 16.0 |
| 75 | 11.7 | 11.7 | 10.7 | 10.6 | 12.5 | 12.5 |
| 80 | 8.8 | 8.8 | 8.0 | 7.9 | 9.4 | 9.4 |
| 85 | 6.4 | 6.5 | 5.8 | 5.8 | 6.8 | 6.8 |
| 90 | 4.6 | 4.6 | 4.1 | 4.1 | 4.8 | 4.8 |
| 95 | 3.2 | 3.2 | 2.9 | 2.9 | 3.3 | 3.3 |
| 100 | 2.2 | 2.3 | 2.0 | 2.1 | 2.2 | 2.3 |
| White | | | | | | |
| 0 | 78.6 | 78.4 | 76.2 | 75.9 | 80.9 | 80.8 |
| 1 | 78.0 | 77.8 | 75.6 | 75.4 | 80.3 | 80.2 |
| 5 | 74.1 | 73.9 | 71.7 | 71.5 | 76.3 | 76.3 |
| 10 | 69.1 | 68.9 | 66.8 | 66.5 | 71.4 | 71.3 |
| 15 | 64.1 | 64.0 | 61.8 | 61.6 | 66.4 | 66.3 |
| 20 | 59.3 | 59.2 | 57.0 | 56.8 | 61.5 | 61.4 |
| 25 | 54.5 | 54.4 | 52.3 | 52.2 | 56.6 | 56.6 |
| 30 | 49.8 | 49.6 | 47.6 | 47.5 | 51.8 | 51.7 |
| 35 | 45.0 | 44.9 | 43.0 | 42.8 | 47.0 | 46.9 |
| 40 | 40.3 | 40.2 | 38.3 | 38.1 | 42.2 | 42.1 |
| 45 | 35.7 | 35.6 | 33.8 | 33.6 | 37.5 | 37.4 |
| 50 | 31.2 | 31.1 | 29.4 | 29.2 | 32.9 | 32.8 |
| 55 | 26.9 | 26.8 | 25.2 | 25.0 | 28.5 | 28.3 |
| 60 | 22.8 | 22.6 | 21.2 | 21.0 | 24.1 | 24.0 |
| 65 | 18.8 | 18.7 | 17.4 | 17.3 | 20.0 | 19.9 |
| 70 | 15.1 | 15.0 | 13.9 | 13.7 | 16.1 | 16.0 |
| 75 | 11.7 | 11.6 | 10.6 | 10.6 | 12.5 | 12.4 |
| 80 | 8.8 | 8.8 | 7.9 | 7.9 | 9.3 | 9.3 |
| 85 | 6.4 | 6.4 | 5.7 | 5.7 | 6.7 | 6.8 |
| 90 | 4.5 | 4.5 | 4.1 | 4.1 | 4.7 | 4.8 |
| 95 | 3.1 | 3.2 | 2.8 | 2.9 | 3.2 | 3.3 |
| 100 | 2.2 | 2.2 | 2.0 | 2.0 | 2.2 | 2.2 |

**Table 6. Expectation of life by age, race, and sex: United States, preliminary 2008 and 2009**

[Data are based on a continuous file of records from the states. Calculations of life expectancy employ populations estimated as of July 1 for 2009 and 2008; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 34 states and the District of Columbia in 2009 and 2008; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes"]

| Age (years) and race | Both sexes | | Male | | Female | |
|---|---|---|---|---|---|---|
| | 2009 | 2008[1] | 2009 | 2008[1] | 2009 | 2008[1] |
| Black | | | | | | |
| 0 | 74.3 | 74.3 | 70.9 | 70.9 | 77.4 | 77.4 |
| 1 | 74.2 | 74.3 | 70.9 | 71.0 | 77.2 | 77.4 |
| 5 | 70.3 | 70.5 | 67.0 | 67.1 | 73.3 | 73.5 |
| 10 | 65.4 | 65.5 | 62.1 | 62.2 | 68.4 | 68.5 |
| 15 | 60.5 | 60.6 | 57.1 | 57.2 | 63.5 | 63.6 |
| 20 | 55.7 | 55.8 | 52.4 | 52.6 | 58.6 | 58.7 |
| 25 | 51.0 | 51.1 | 47.9 | 48.0 | 53.7 | 53.9 |
| 30 | 46.3 | 46.5 | 43.3 | 43.5 | 49.0 | 49.1 |
| 35 | 41.7 | 41.8 | 38.8 | 39.0 | 44.2 | 44.3 |
| 40 | 37.1 | 37.3 | 34.3 | 34.5 | 39.6 | 39.6 |
| 45 | 32.7 | 32.8 | 30.0 | 30.1 | 35.0 | 35.1 |
| 50 | 28.5 | 28.6 | 25.8 | 26.0 | 30.7 | 30.8 |
| 55 | 24.5 | 24.6 | 22.0 | 22.2 | 26.6 | 26.7 |
| 60 | 20.9 | 20.9 | 18.6 | 18.7 | 22.7 | 22.7 |
| 65 | 17.5 | 17.5 | 15.5 | 15.5 | 18.9 | 18.9 |
| 70 | 14.3 | 14.3 | 12.6 | 12.6 | 15.4 | 15.4 |
| 75 | 11.3 | 11.3 | 9.9 | 10.0 | 12.2 | 12.2 |
| 80 | 8.8 | 8.8 | 7.7 | 7.8 | 9.4 | 9.5 |
| 85 | 6.7 | 6.8 | 5.9 | 6.0 | 7.1 | 7.1 |
| 90 | 5.0 | 5.1 | 4.4 | 4.6 | 5.2 | 5.3 |
| 95 | 3.7 | 3.8 | 3.3 | 3.5 | 3.8 | 3.8 |
| 100 | 2.7 | 2.8 | 2.5 | 2.6 | 2.7 | 2.8 |

[1] Life expectancies for 2008 have been updated and may differ from those previously published; see "Technical Notes."

[2] Includes races other than white and black.

NOTE: Data are subject to sampling or random variation.

**Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2009**

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population in specified group. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Rank[1] | Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) and age | Number | Rate |
|---|---|---|---|
| | All ages[2] | | |
| ... | All causes | 2,436,652 | 793.7 |
| 1 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 598,607 | 195.0 |
| 2 | Malignant neoplasms (C00-C97) | 568,668 | 185.2 |
| 3 | Chronic lower respiratory diseases (J40-J47) | 137,082 | 44.7 |
| 4 | Cerebrovascular diseases (I60-I69) | 128,603 | 41.9 |
| 5 | Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 117,176 | 38.2 |
| ... | Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 36,284 | 11.8 |
| ... | All other accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V12,V15-V18,V19.3, V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9,V90-V99,W00-X59,Y85-Y86) | 80,892 | 26.3 |
| 6 | Alzheimer's disease (G30) | 78,889 | 25.7 |
| 7 | Diabetes mellitus (E10-E14) | 68,504 | 22.3 |
| 8 | Influenza and pneumonia (J09-J18)[3] | 53,582 | 17.5 |
| 9 | Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) | 48,714 | 15.9 |
| 10 | Intentional self-harm (suicide) (*U03,X60-X84,Y87.0) | 36,547 | 11.9 |
| ... | All other causes (Residual) | 600,280 | 195.5 |
| | 1-4 years | | |
| ... | All causes | 4,448 | 26.1 |
| 1 | Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 1,446 | 8.5 |
| ... | Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 462 | 2.7 |
| ... | All other accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V12,V15-V18,V19.3, V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9,V90-V99, W00-X59,Y85-Y86) | 984 | 5.8 |
| 2 | Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 485 | 2.8 |
| 3 | Assault (homicide) (*U01-*U02,X85-Y09,Y87.1) | 385 | 2.3 |
| 4 | Malignant neoplasms (C00-C97) | 349 | 2.0 |
| 5 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 154 | 0.9 |
| 6 | Influenza and pneumonia (J09-J18)[3] | 132 | 0.8 |
| 7 | Septicemia (A40-A41) | 70 | 0.4 |
| 8 | Chronic lower respiratory diseases (J40-J47) | 60 | 0.4 |
| 9 | Certain conditions originating in the perinatal period (P00-P96) | 58 | 0.3 |
| 10 | In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) | 51 | 0.3 |
| ... | All other causes (Residual) | 1,258 | 7.4 |

**Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2009**

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population in specified group. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Rank[1] | Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) and age | Number | Rate |
|---|---|---|---|
| | 5-14 years | | |
| … | All causes | 5,628 | 13.9 |
| 1 | Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 1,667 | 4.1 |
| … | Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 950 | 2.3 |
| … | All other accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V12,V15-V18,V19.3, V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9,V90-V99,W00-X59,Y85-Y86) | 717 | 1.8 |
| 2 | Malignant neoplasms (C00-C97) | 893 | 2.2 |
| 3 | Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 350 | 0.9 |
| 4 | Assault (homicide) (*U01-*U02,X85-Y09,Y87.1) | 319 | 0.8 |
| 5 | Intentional self harm (suicide) (*U03,X60-X84,Y87.0) | 266 | 0.7 |
| 6 | Influenza and pneumonia (J09-J18)[3] | 230 | 0.6 |
| 7 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 200 | 0.5 |
| 8 | Chronic lower respiratory diseases (J40-J47) | 116 | 0.3 |
| 9 | In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) | 84 | 0.2 |
| 10 | Cerebrovascular diseases (I60-I69) | 69 | 0.2 |
| … | All other causes (Residual) | 1,434 | 3.5 |
| | 15-24 years | | |
| … | All causes | 30,252 | 70.2 |
| 1 | Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 12,351 | 28.7 |
| … | Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 7,648 | 17.8 |
| … | All other accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V12,V15-V18,V19.3, V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9,V90-V99,W00-X59,Y85-Y86) | 4,703 | 10.9 |
| 2 | Assault (homicide) (*U01-*U02,X85-Y09,Y87.1) | 4,820 | 11.2 |
| 3 | Intentional self harm (suicide) (*U03,X60-X84,Y87.0) | 4,341 | 10.1 |
| 4 | Malignant neoplasms (C00-C97) | 1,659 | 3.9 |
| 5 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 1,010 | 2.3 |
| 6 | Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 451 | 1.0 |
| 7 | Influenza and pneumonia (J09-J18)[3] | 410 | 1.0 |
| 8 | Pregnancy, childbirth and the puerperium (O00-O99) | 202 | 0.5 |
| 9 | Cerebrovascular diseases (I60-I69) | 198 | 0.5 |
| 10 | Chronic lower respiratory diseases (J40-J47) | 182 | 0.4 |
| … | All other causes (Residual) | 4,628 | 10.7 |

**Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2009**

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population in specified group. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Rank[1] | Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) and age | Number | Rate |
|---|---|---|---|
| | 25-44 years | | |
| … | All causes | 116,830 | 140.6 |
| 1 | Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 28,844 | 34.7 |
| … | Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 11,033 | 13.3 |
| … | All other accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V12,V15-V18,V19.3, V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9,V90-V99,W00-X59,Y85-Y86) | 17,811 | 21.4 |
| 2 | Malignant neoplasms (C00-C97) | 16,236 | 19.5 |
| 3 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 14,053 | 16.9 |
| 4 | Intentional self harm (suicide) (*U03,X60-X84,Y87.0) | 11,871 | 14.3 |
| 5 | Assault (homicide) (*U01-*U02,X85-Y09,Y87.1) | 6,883 | 8.3 |
| 6 | Human immunodeficiency virus (HIV) disease (B20-B24) | 3,326 | 4.0 |
| 7 | Chronic liver disease and cirrhosis (K70,K73-K74) | 2,931 | 3.5 |
| 8 | Cerebrovascular diseases (I60-I69) | 2,432 | 2.9 |
| 9 | Diabetes mellitus (E10-E14) | 2,429 | 2.9 |
| 10 | Influenza and pneumonia (J09-J18)[3] | 2,052 | 2.5 |
| … | All other causes (Residual) | 25,773 | 31.0 |
| | 45-64 years | | |
| … | All causes | 490,145 | 617.5 |
| 1 | Malignant neoplasms (C00-C97) | 157,544 | 198.5 |
| 2 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 103,704 | 130.6 |
| 3 | Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 32,357 | 40.8 |
| … | Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 9,818 | 12.4 |
| … | All other accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V12,V15-V18,V19.3, V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9,V90-V99,W00-X59,Y85-Y86) | 22,539 | 28.4 |
| 4 | Chronic lower respiratory diseases (J40-J47) | 18,651 | 23.5 |
| 5 | Chronic liver disease and cirrhosis (K70,K73-K74) | 17,499 | 22.0 |
| 6 | Diabetes mellitus (E10-E14) | 17,052 | 21.5 |
| 7 | Cerebrovascular diseases (I60-I69) | 16,663 | 21.0 |
| 8 | Intentional self harm (suicide) (*U03,X60-X84,Y87.0) | 14,192 | 17.9 |
| 9 | Influenza and pneumonia (J09-J18)[3] | 7,069 | 8.9 |
| 10 | Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) | 7,047 | 8.9 |
| … | All other causes (Residual) | 98,367 | 123.9 |

**Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2009**

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population in specified group. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Rank[1] | Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) and age | Number | Rate |
|---|---|---|---|
| | 65 years and over | | |
| … | All causes | 1,762,494 | 4,454.1 |
| 1 | Diseases of heart (I00-I09,I11,I13,I20-I51) | 479,046 | 1,210.6 |
| 2 | Malignant neoplasms (C00-C97) | 391,855 | 990.3 |
| 3 | Chronic lower respiratory diseases (J40-J47) | 117,048 | 295.8 |
| 4 | Cerebrovascular diseases (I60-I69) | 109,055 | 275.6 |
| 5 | Alzheimer's disease (G30) | 78,058 | 197.3 |
| 6 | Diabetes mellitus (E10-E14) | 48,811 | 123.4 |
| 7 | Influenza and pneumonia (J09-J18)[3] | 43,433 | 109.8 |
| 8 | Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) | 40,341 | 101.9 |
| 9 | Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 39,316 | 99.4 |
| … | Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 6,259 | 15.8 |
| … | All other accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V12,V15-V18,V19.3, V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9,V90-V99,W00-X59,Y85-Y86) | 33,057 | 83.5 |
| 10 | Septicemia (A40-A41) | 26,810 | 67.8 |
| … | All other causes (Residual) | 388,721 | 982.3 |

… Category not applicable.

[1] Rank based on number of deaths; see "Technical Notes."

[2] Includes deaths under 1 year of age.

[3] Expanded ICD-10 code J09 (Influenza due to certain identified influenza virus) was added to the category in 2009; see "Technical Notes."

NOTES: For certain causes of death such as unintentional injuries, homicides, suicides, and respiratory diseases, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

**Table 8. Infant deaths and infant mortality rates for the 10 leading causes of infant death: United States, preliminary 2009**

[Data are based on a continuous file of records received from the states. Rates are per 100,000 live births. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

| Rank[1] | Cause of death (Based on the *International Classification of Diseases, Tenth Revision*, Second Edition, 2004) | Number | Rate |
|---|---|---|---|
| ... | All causes | 26,526 | 642.1 |
| 1 | Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 5,358 | 129.7 |
| 2 | Disorders related to short gestation and low birth weight, not elsewhere classified (P07) | 4,463 | 108.0 |
| 3 | Sudden infant death syndrome (R95) | 2,168 | 52.5 |
| 4 | Newborn affected by maternal complications of pregnancy (P01) | 1,586 | 38.4 |
| 5 | Accidents (unintentional injuries) (V01-X59) | 1,158 | 28.0 |
| 6 | Newborn affected by complications of placenta, cord and membranes (P02) | 1,022 | 24.7 |
| 7 | Bacterial sepsis of newborn (P36) | 682 | 16.5 |
| 8 | Respiratory distress of newborn (P22) | 587 | 14.2 |
| 9 | Diseases of the circulatory system (I00-I99) | 565 | 13.7 |
| 10 | Neonatal hemorrhage (P50-P52,P54) | 537 | 13.0 |
| ... | All other causes (Residual) | 8,400 | 203.3 |

... Category not applicable.

[1] Rank based on number of deaths; see "Technical Notes."

NOTE: For certain causes of death such as unintentional injuries, homicides, suicides, and sudden infant death syndrome, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes." Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, another measure of infant mortality, the infant death rate, is shown elsewhere in the report. The two measures typically are similar, yet they can differ because the denominators used for these measures are different.

## Additional Technical Notes Tables

**Table I. Total count of records and percent completeness of preliminary files of infant deaths and deaths to those aged 1 year and over: United States, each state and territory, preliminary 2009**

[By place of occurrence]

| Area | Infant deaths (under 1 year of age) | | | Deaths to those aged 1 year and over | | |
|---|---|---|---|---|---|---|
| | | Percent completeness | | | Percent completeness | |
| | Count of records | Demographic file | Medical file | Count of records | Demographic file | Medical file |
| United States[1] | 26,610 | 97.4 | 94.3 | 2,414,435 | 98.5 | 96.5 |
| Alabama | 522 | 100.0 | 100.0 | 46,311 | 100.0 | 100.0 |
| Alaska | 67 | 100.0 | 100.0 | 3,500 | 99.9 | 99.9 |
| Arizona | 552 | 100.0 | 93.5 | 45,899 | 100.0 | 98.6 |
| Arkansas | 297 | 100.0 | 100.0 | 28,111 | 100.0 | 100.0 |
| California | 2,621 | 93.7 | 93.7 | 230,778 | 94.3 | 94.3 |
| Colorado | 456 | 100.0 | 100.0 | 31,135 | 100.0 | 100.0 |
| Connecticut | 210 | 100.0 | 100.0 | 28,402 | 100.0 | 100.0 |
| Delaware | 103 | 100.0 | 100.0 | 7,468 | 100.0 | 100.0 |
| District of Columbia | 197 | 100.0 | 93.9 | 5,802 | 100.0 | 95.3 |
| Florida | 1,542 | 100.0 | 100.0 | 169,764 | 100.0 | 100.0 |
| Georgia | 1,164 | 59.8 | 7.2 | 68,977 | 71.3 | 12.9 |
| Hawaii | 116 | 100.0 | 100.0 | 9,829 | 100.0 | 100.0 |
| Idaho | 116 | 100.0 | 100.0 | 10,821 | 100.0 | 100.0 |
| Illinois | 1,138 | 99.7 | 98.4 | 95,972 | 99.9 | 99.9 |
| Indiana | 662 | 100.0 | 99.7 | 55,889 | 100.0 | 99.7 |
| Iowa | 161 | 100.0 | 100.0 | 27,208 | 100.0 | 100.0 |
| Kansas | 254 | 100.0 | 100.0 | 22,989 | 100.0 | 100.0 |
| Kentucky | 316 | 99.1 | 98.7 | 40,584 | 100.0 | 99.9 |
| Louisiana | 580 | 100.0 | 99.0 | 39,785 | 100.0 | 99.5 |
| Maine | 72 | 95.8 | 94.4 | 12,408 | 96.4 | 96.1 |
| Maryland | 484 | 100.0 | 100.0 | 43,163 | 100.0 | 100.0 |
| Massachusetts | 394 | 95.9 | 88.6 | 52,716 | 96.0 | 94.1 |
| Michigan | 889 | 99.9 | 99.9 | 84,375 | 100.0 | 100.0 |
| Minnesota | 343 | 100.0 | 97.7 | 37,506 | 100.0 | 97.7 |
| Mississippi | 378 | 100.0 | 100.0 | 27,331 | 100.0 | 100.0 |
| Missouri | 642 | 100.0 | 100.0 | 55,506 | 100.0 | 100.0 |
| Montana | 63 | 100.0 | 100.0 | 8,674 | 100.0 | 100.0 |
| Nebraska | 156 | 100.0 | 100.0 | 14,919 | 100.0 | 100.0 |
| Nevada | 219 | 99.5 | 83.6 | 19,651 | 100.0 | 96.3 |
| New Hampshire | 58 | 100.0 | 100.0 | 9,936 | 100.0 | 100.0 |
| New Jersey | 480 | 100.0 | 99.8 | 66,535 | 100.0 | 100.0 |
| New Mexico | 137 | 100.0 | 100.0 | 15,083 | 100.0 | 100.0 |
| New York | 1,335 | 100.0 | 100.0 | 144,041 | 100.0 | 100.0 |
| New York excluding New York City | 667 | 100.0 | 100.0 | 91,826 | 100.0 | 100.0 |
| New York City | 668 | 100.0 | 100.0 | 52,215 | 100.0 | 100.0 |
| North Carolina | 1,030 | 100.0 | 99.3 | 76,848 | 100.0 | 100.0 |
| North Dakota | 54 | 100.0 | 100.0 | 6,387 | 100.0 | 99.7 |
| Ohio | 1,160 | 99.7 | 99.0 | 106,085 | 100.0 | 99.8 |
| Oklahoma | 419 | 100.0 | 100.0 | 34,242 | 100.0 | 100.0 |
| Oregon | 243 | 99.6 | 99.6 | 31,381 | 99.1 | 99.1 |
| Pennsylvania | 1,118 | 100.0 | 98.9 | 124,879 | 100.0 | 100.0 |
| Rhode Island | 88 | 100.0 | 100.0 | 9,520 | 100.0 | 100.0 |
| South Carolina | 412 | 96.4 | 95.4 | 39,268 | 100.0 | 99.0 |
| South Dakota | 87 | 100.0 | 100.0 | 7,053 | 100.0 | 100.0 |
| Tennessee | 744 | 100.0 | 100.0 | 60,377 | 100.0 | 100.0 |
| Texas | 2,437 | 99.9 | 99.9 | 162,991 | 100.0 | 100.0 |
| Utah | 308 | 100.0 | 100.0 | 14,298 | 100.0 | 100.0 |
| Vermont | 29 | 100.0 | 100.0 | 4,955 | 100.0 | 100.0 |
| Virginia | 694 | 100.0 | 99.7 | 57,285 | 100.0 | 100.0 |
| Washington | 447 | 100.0 | 100.0 | 47,897 | 100.0 | 100.0 |

**Table I. Total count of records and percent completeness of preliminary files of infant deaths and deaths to those aged 1 year and over: United States, each state and territory, preliminary 2009**

[By place of occurrence]

| Area | Infant deaths (under 1 year of age) | | | Deaths to those aged 1 year and over | | |
|---|---|---|---|---|---|---|
| | | Percent completeness | | | Percent completeness | |
| | Count of records | Demographic file | Medical file | Count of records | Demographic file | Medical file |
| West Virginia | 164 | 100.0 | 78.7 | 20,855 | 100.0 | 80.2 |
| Wisconsin | 427 | 100.0 | 100.0 | 45,085 | 100.0 | 100.0 |
| Wyoming | 25 | 100.0 | 100.0 | 3,962 | 100.0 | 100.0 |
| Puerto Rico | 356 | 96.9 | 96.9 | 28,636 | 96.8 | 96.8 |
| Virgin Islands | 8 | 0.0 | 0.0 | 690 | 0.0 | 0.0 |
| Guam | 36 | 0.0 | 0.0 | 813 | 0.0 | 0.0 |
| American Samoa | 15 | 100.0 | 100.0 | 298 | 100.0 | 100.0 |
| Northern Marianas | 2 | 100.0 | 100.0 | 194 | 100.0 | 99.0 |

0.0 Quantity more than zero but less than 0.05. [1]Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas.

NOTE: Percent completeness equals 100 times the number of records in preliminary file divided by the count of records.

**Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2005-2007**

[For explanation of asterisk preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| All causes | 2,424,059 | 2,423,712 | 1.0001 | 2,425,901 | 2,426,264 | 0.9999 | 2,447,910 | 2,448,017 | 1.0000 |
| Salmonella infections (A01-A02) | 30 | 30 | 1.0000 | 33 | 34 | 0.9706 | 30 | 30 | 1.0000 |
| Shigellosis and amebiasis (A03,A06) | 4 | 4 | 1.0000 | 4 | 6 | 0.6667 | 9 | 10 | 0.9000 |
| Certain other intestinal infections (A04,A07-A09) | 6,822 | 6,758 | 1.0095 | 6,671 | 6,639 | 1.0048 | 5,694 | 5,667 | 1.0048 |
| Tuberculosis (A16-A19) | 541 | 554 | 0.9765 | 644 | 652 | 0.9877 | 646 | 648 | 0.9969 |
| Respiratory tuberculosis (A16) | 410 | 424 | 0.9670 | 485 | 490 | 0.9898 | 477 | 480 | 0.9938 |
| Other tuberculosis (A17-A19) | 131 | 130 | 1.0077 | 159 | 162 | 0.9815 | 169 | 168 | 1.0060 |
| Whooping cough (A37) | 11 | 9 | 1.2222 | 9 | 9 | 1.0000 | 32 | 31 | 1.0323 |
| Scarlet fever and erysipelas (A38,A46) | 3 | 3 | 1.0000 | 2 | 2 | 1.0000 | 3 | 3 | 1.0000 |
| Meningococcal infection (A39) | 73 | 87 | 0.8391 | 103 | 105 | 0.9810 | 119 | 123 | 0.9675 |
| Septicemia (A40-A41) | 34,851 | 34,828 | 1.0007 | 34,031 | 34,234 | 0.9941 | 34,142 | 34,136 | 1.0002 |
| Syphilis (A50-A53) | 50 | 42 | 1.1905 | 35 | 38 | 0.9211 | 46 | 47 | 0.9787 |
| Acute poliomyelitis (A80) | - | - | ... | - | - | ... | 4 | - | ... |
| Arthropod-borne viral encephalitis (A83-A84,A85.2) | 2 | 3 | 0.6667 | 5 | 5 | 1.0000 | 6 | 6 | 1.0000 |
| Measles (B05) | - | - | ... | - | - | ... | 1 | 1 | 1.0000 |
| Viral hepatitis (B15-B19) | 7,313 | 7,407 | 0.9873 | 6,021 | 7,250 | 0.8305 | 5,524 | 5,529 | 0.9991 |
| Human immunodeficiency virus (HIV) disease (B20-B24) | 11,061 | 11,295 | 0.9793 | 12,045 | 12,113 | 0.9944 | 12,456 | 12,543 | 0.9931 |
| Malaria (B50-B54) | 4 | 5 | 0.8000 | 9 | 9 | 1.0000 | 6 | 6 | 1.0000 |
| Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49,A54-A79,A81-A82, A85.0-A85.1,A85.8,A86-B04,B06-B09,B25-B49,B55-B99) | 5,774 | 5,825 | 0.9912 | 7,110 | 5,897 | 1.2057 | 7,695 | 7,727 | 0.9959 |
| Malignant neoplasms (C00-C97) | 560,187 | 562,875 | 0.9952 | 560,102 | 559,888 | 1.0004 | 559,300 | 559,312 | 1.0000 |
| Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) | 7,950 | 8,067 | 0.9855 | 7,727 | 7,720 | 1.0009 | 7,775 | 7,773 | 1.0003 |
| Malignant neoplasm of esophagus (C15) | 13,488 | 13,592 | 0.9923 | 13,674 | 13,686 | 0.9991 | 13,512 | 13,499 | 1.0010 |
| Malignant neoplasm of stomach (C16) | 11,308 | 11,388 | 0.9930 | 11,354 | 11,345 | 1.0008 | 11,473 | 11,514 | 0.9964 |
| Malignant neoplasms of colon, rectum and anus (C18-C21) | 53,100 | 53,586 | 0.9909 | 53,465 | 53,549 | 0.9984 | 53,228 | 53,252 | 0.9995 |
| Malignant neoplasms of liver and intrahepatic bile ducts (C22) | 17,033 | 17,146 | 0.9934 | 16,447 | 16,525 | 0.9953 | 16,049 | 16,076 | 0.9983 |
| Malignant neoplasm of pancreas (C25) | 34,032 | 34,117 | 0.9975 | 33,437 | 33,454 | 0.9995 | 32,741 | 32,760 | 0.9994 |
| Malignant neoplasm of larynx (C32) | 3,680 | 3,634 | 1.0127 | 3,824 | 3,821 | 1.0008 | 3,790 | 3,797 | 0.9982 |
| Malignant neoplasms of trachea, bronchus and lung (C33-C34) | 158,258 | 158,760 | 0.9968 | 158,525 | 158,664 | 0.9991 | 159,415 | 159,292 | 1.0008 |
| Malignant melanoma of skin (C43) | 8,499 | 8,461 | 1.0045 | 8,487 | 8,441 | 1.0054 | 8,368 | 8,345 | 1.0028 |
| Malignant neoplasm of breast (C50) | 40,514 | 40,970 | 0.9889 | 41,223 | 41,210 | 1.0003 | 41,471 | 41,491 | 0.9995 |
| Malignant neoplasm of cervix uteri (C53) | 3,942 | 4,021 | 0.9804 | 3,926 | 3,976 | 0.9874 | 3,914 | 3,924 | 0.9975 |
| Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) | 7,319 | 7,456 | 0.9816 | 7,374 | 7,384 | 0.9986 | 7,070 | 7,096 | 0.9963 |
| Malignant neoplasm of ovary (C56) | 14,535 | 14,621 | 0.9941 | 14,906 | 14,857 | 1.0033 | 14,770 | 14,787 | 0.9989 |
| Malignant neoplasm of prostate (C61) | 28,823 | 29,093 | 0.9907 | 28,331 | 28,372 | 0.9986 | 28,916 | 28,905 | 1.0004 |
| Malignant neoplasms of kidney and renal pelvis (C64-C65) | 12,569 | 12,703 | 0.9895 | 12,376 | 12,379 | 0.9998 | 12,513 | 12,517 | 0.9997 |
| Malignant neoplasm of bladder (C67) | 13,827 | 13,843 | 0.9988 | 13,492 | 13,474 | 1.0013 | 13,258 | 13,253 | 1.0004 |
| Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) | 13,172 | 13,234 | 0.9953 | 12,853 | 12,886 | 0.9974 | 13,149 | 13,152 | 0.9998 |
| Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) | 54,950 | 54,991 | 0.9993 | 55,241 | 55,045 | 1.0036 | 55,023 | 55,028 | 0.9999 |
| Hodgkin's disease (C81) | 1,251 | 1,271 | 0.9843 | 1,331 | 1,327 | 1.0030 | 1,272 | 1,272 | 1.0000 |
| Non-Hodgkin's lymphoma (C82-C85) | 20,537 | 20,528 | 1.0004 | 20,663 | 20,594 | 1.0034 | 20,863 | 20,873 | 0.9995 |
| Leukemia (C91-C95) | 21,696 | 21,825 | 0.9941 | 22,022 | 21,944 | 1.0036 | 21,616 | 21,623 | 0.9997 |
| Multiple myeloma and immunoproliferative neoplasms (C88,C90) | 11,420 | 11,307 | 1.0100 | 11,153 | 11,111 | 1.0038 | 11,213 | 11,200 | 1.0012 |
| Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) | 47 | 60 | 0.7833 | 71 | 69 | 1.0290 | 60 | 60 | 1.0000 |

**Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2005-2007**

[For explanation of asterisk preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31,C37-C41,C44-C49,C51-C52,C57-C60, C62-C63,C66,C68-C69,C73-C80,C97) | 63,186 | 63,192 | 0.9999 | 63,441 | 63,100 | 1.0054 | 62,865 | 62,851 | 1.0002 |
| In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) | 14,151 | 14,204 | 0.9963 | 14,101 | 14,122 | 0.9985 | 13,732 | 13,710 | 1.0016 |
| Anemias (D50-D64) | 4,848 | 4,829 | 1.0039 | 4,007 | 3,996 | 1.0028 | 4,611 | 4,624 | 0.9972 |
| Diabetes mellitus (E10-E14) | 70,905 | 71,382 | 0.9933 | 72,507 | 72,449 | 1.0008 | 74,817 | 75,119 | 0.9960 |
| Nutritional deficiencies (E40-E64) | 2,810 | 2,852 | 0.9853 | 2,568 | 2,556 | 1.0047 | 3,185 | 3,183 | 1.0006 |
| Malnutrition (E40-E46) | 2,600 | 2,644 | 0.9834 | 2,383 | 2,377 | 1.0025 | 3,004 | 3,003 | 1.0003 |
| Other nutritional deficiencies (E50-E64) | 210 | 208 | 1.0096 | 185 | 179 | 1.0335 | 181 | 180 | 1.0056 |
| Meningitis (G00,G03) | 626 | 655 | 0.9557 | 632 | 634 | 0.9968 | 652 | 669 | 0.9746 |
| Parkinson's disease (G20-G21) | 20,136 | 20,058 | 1.0039 | 19,660 | 19,566 | 1.0048 | 19,547 | 19,544 | 1.0002 |
| Alzheimer's disease (G30) | 74,944 | 74,632 | 1.0042 | 72,914 | 72,432 | 1.0067 | 71,696 | 71,599 | 1.0014 |
| Major cardiovascular diseases (I00-I78) | 803,504 | 806,156 | 0.9967 | 821,494 | 823,746 | 0.9973 | 853,188 | 856,030 | 0.9967 |
| Diseases of heart (I00-I09,I11,I13,I20-I51) | 615,651 | 616,067 | 0.9993 | 629,191 | 631,636 | 0.9961 | 649,399 | 652,091 | 0.9959 |
| Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) | 3,188 | 3,201 | 0.9959 | 3,257 | 3,257 | 1.0000 | 3,359 | 3,365 | 0.9982 |
| Hypertensive heart disease (I11) | 30,354 | 30,780 | 0.9862 | 29,217 | 29,788 | 0.9808 | 28,902 | 29,282 | 0.9870 |
| Hypertensive heart and renal disease (I13) | 2,954 | 2,987 | 0.9890 | 2,919 | 2,918 | 1.0003 | 3,148 | 3,172 | 0.9924 |
| Ischemic heart diseases (I20-I25) | 403,741 | 406,351 | 0.9936 | 424,892 | 425,425 | 0.9987 | 443,891 | 445,687 | 0.9960 |
| Acute myocardial infarction (I21-I22) | 132,841 | 132,968 | 0.9990 | 141,965 | 141,462 | 1.0036 | 150,852 | 151,004 | 0.9990 |
| Other acute ischemic heart diseases (I24) | 4,046 | 4,092 | 0.9888 | 3,938 | 3,932 | 1.0015 | 3,556 | 3,565 | 0.9975 |
| Other forms of chronic ischemic heart disease (I20,I25) | 266,854 | 269,291 | 0.9910 | 278,988 | 280,031 | 0.9963 | 289,483 | 291,118 | 0.9944 |
| Atherosclerotic cardiovascular disease, so described (I25.0) | 57,639 | 59,051 | 0.9761 | 59,734 | 61,030 | 0.9788 | 61,864 | 62,799 | 0.9851 |
| All other forms of chronic ischemic heart disease (I20,I25.1-I25.9) | 209,215 | 210,240 | 0.9951 | 219,254 | 219,001 | 1.0012 | 227,619 | 228,319 | 0.9969 |
| Other heart diseases (I26-I51) | 175,413 | 172,748 | 1.0154 | 168,906 | 170,248 | 0.9921 | 170,099 | 170,585 | 0.9972 |
| Acute and subacute endocarditis (I33) | 1,206 | 1,225 | 0.9845 | 1,209 | 1,216 | 0.9942 | 1,203 | 1,209 | 0.9950 |
| Diseases of pericardium and acute myocarditis (I30-I31,I40) | 843 | 867 | 0.9723 | 784 | 816 | 0.9608 | 836 | 864 | 0.9676 |
| Heart failure (I50) | 57,235 | 56,565 | 1.0118 | 60,315 | 60,337 | 0.9996 | 59,001 | 58,933 | 1.0012 |
| All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) | 116,129 | 114,091 | 1.0179 | 106,598 | 107,879 | 0.9881 | 109,059 | 109,579 | 0.9953 |
| Essential hypertension and hypertensive renal disease (I10,I12,I15) | 23,769 | 23,965 | 0.9918 | 23,985 | 23,855 | 1.0054 | 24,865 | 24,902 | 0.9985 |
| Cerebrovascular diseases (I60-I69) | 133,990 | 135,952 | 0.9856 | 137,265 | 137,119 | 1.0011 | 143,497 | 143,579 | 0.9994 |
| Atherosclerosis (I70) | 8,223 | 8,232 | 0.9989 | 8,619 | 8,652 | 0.9962 | 11,833 | 11,841 | 0.9993 |
| Other diseases of circulatory system (I71-I78) | 21,872 | 21,940 | 0.9969 | 22,435 | 22,484 | 0.9978 | 23,594 | 23,617 | 0.9990 |
| Aortic aneurysm and dissection (I71) | 12,887 | 12,986 | 0.9924 | 13,178 | 13,238 | 0.9955 | 13,811 | 13,843 | 0.9977 |
| Other diseases of arteries, arterioles and capillaries (I72-I78) | 8,985 | 8,954 | 1.0035 | 9,258 | 9,246 | 1.0013 | 9,783 | 9,774 | 1.0009 |
| Other disorders of circulatory system (I80-I99) | 3,981 | 4,101 | 0.9707 | 3,941 | 3,995 | 0.9865 | 4,777 | 4,813 | 0.9925 |
| Influenza and pneumonia (J09-J18)[1] | 52,847 | 52,717 | 1.0025 | 56,247 | 56,326 | 0.9986 | 62,804 | 63,001 | 0.9969 |
| Influenza (J09-J11)[1] | 457 | 411 | 1.1119 | 860 | 849 | 1.0130 | 1,806 | 1,812 | 0.9967 |
| Pneumonia (J12-J18) | 52,389 | 52,306 | 1.0016 | 55,387 | 55,477 | 0.9984 | 60,998 | 61,189 | 0.9969 |
| Other acute lower respiratory infections (J20-J22,U04) [2] | 268 | 255 | 1.0510 | 289 | 297 | 0.9731 | 403 | 404 | 0.9975 |
| Acute bronchitis and bronchiolitis (J20-J21) | 225 | 213 | 1.0563 | 203 | 214 | 0.9486 | 281 | 283 | 0.9929 |
| Unspecified acute lower respiratory infection (J22,U04) [2,3] | 43 | 42 | 1.0238 | 86 | 83 | 1.0361 | 121 | 121 | 1.0000 |
| Chronic lower respiratory diseases (J40-J47) | 129,311 | 127,924 | 1.0108 | 124,614 | 124,583 | 1.0002 | 130,957 | 130,933 | 1.0002 |
| Bronchitis, chronic and unspecified (J40-J42) | 704 | 667 | 1.0555 | 740 | 740 | 1.0000 | 860 | 866 | 0.9931 |
| Emphysema (J43) | 12,963 | 12,790 | 1.0135 | 12,570 | 12,551 | 1.0015 | 13,982 | 14,002 | 0.9986 |
| Asthma (J45-J46) | 3,355 | 3,447 | 0.9733 | 3,563 | 3,613 | 0.9862 | 3,857 | 3,884 | 0.9930 |
| Other chronic lower respiratory diseases (J44,J47) | 112,289 | 111,020 | 1.0114 | 107,741 | 107,679 | 1.0006 | 112,259 | 112,181 | 1.0007 |

**Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2005-2007**

[For explanation of asterisk preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| Pneumoconioses and chemical effects (J60-J66,J68) | 907 | 915 | 0.9913 | 923 | 924 | 0.9989 | 999 | 1,007 | 0.9921 |
| Pneumonitis due to solids and liquids (J69) | 17,302 | 16,988 | 1.0185 | 16,961 | 16,887 | 1.0044 | 17,351 | 17,279 | 1.0042 |
| Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) | 28,773 | 28,508 | 1.0093 | 27,676 | 27,644 | 1.0012 | 27,065 | 27,056 | 1.0003 |
| Peptic ulcer (K25-K28) | 3,000 | 3,045 | 0.9852 | 3,286 | 3,323 | 0.9889 | 3,453 | 3,478 | 0.9928 |
| Diseases of appendix (K35-K38) | 413 | 426 | 0.9695 | 429 | 424 | 1.0118 | 434 | 439 | 0.9886 |
| Hernia (K40-K46) | 1,663 | 1,698 | 0.9794 | 1,738 | 1,744 | 0.9966 | 1,629 | 1,639 | 0.9939 |
| Chronic liver disease and cirrhosis (K70,K73-K74) | 28,504 | 29,165 | 0.9773 | 27,299 | 27,555 | 0.9907 | 27,393 | 27,530 | 0.9950 |
| Alcoholic liver disease (K70) | 13,891 | 14,406 | 0.9643 | 12,925 | 13,050 | 0.9904 | 12,865 | 12,928 | 0.9951 |
| Other chronic liver disease and cirrhosis (K73-K74) | 14,613 | 14,759 | 0.9901 | 14,374 | 14,505 | 0.9910 | 14,529 | 14,602 | 0.9950 |
| Cholelithiasis and other disorders of gallbladder (K80-K82) | 3,178 | 3,237 | 0.9818 | 3,123 | 3,114 | 1.0029 | 3,062 | 3,072 | 0.9967 |
| Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) | 46,095 | 46,448 | 0.9924 | 44,791 | 45,344 | 0.9878 | 43,679 | 43,901 | 0.9949 |
| Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04) | 191 | 206 | 0.9272 | 135 | 138 | 0.9783 | 137 | 137 | 1.0000 |
| Chronic glomerulonephritis, nephrosis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified (N02-N03,N05-N07,N26) | 2,821 | 2,958 | 0.9537 | 1,365 | 1,841 | 0.7414 | 588 | 867 | 0.6782 |
| Renal failure (N17-N19) | 43,064 | 43,263 | 0.9954 | 43,270 | 43,344 | 0.9983 | 42,925 | 42,868 | 1.0013 |
| Other disorders of kidney (N25,N27) | 19 | 21 | 0.9048 | 20 | 21 | 0.9524 | 29 | 29 | 1.0000 |
| Infections of kidney (N10-N12,N13.6,N15.1) | 612 | 628 | 0.9745 | 661 | 673 | 0.9822 | 767 | 767 | 1.0000 |
| Hyperplasia of prostate (N40) | 498 | 491 | 1.0143 | 518 | 514 | 1.0078 | 527 | 525 | 1.0038 |
| Inflammatory diseases of female pelvic organs (N70-N76) | 100 | 116 | 0.8621 | 113 | 112 | 1.0089 | 120 | 120 | 1.0000 |
| Pregnancy, childbirth and the puerperium (O00-099) | 762 | 769 | 0.9909 | 787 | 760 | 1.0355 | 678 | 760 | 0.8921 |
| Pregnancy with abortive outcome (O00-O07) | 28 | 31 | 0.9032 | 21 | 26 | 0.8077 | 32 | 33 | 0.9697 |
| Other complications of pregnancy, childbirth and the puerperium (O10-O99) | 734 | 738 | 0.9946 | 765 | 734 | 1.0422 | 646 | 727 | 0.8886 |
| Certain conditions originating in the perinatal period (P00-P96) | 14,293 | 14,599 | 0.9790 | 14,384 | 14,442 | 0.9960 | 14,539 | 14,549 | 0.9993 |
| Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 10,277 | 10,421 | 0.9862 | 10,434 | 10,489 | 0.9948 | 10,349 | 10,410 | 0.9941 |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) | 49,960 | 33,500 | 1.4913 | 40,759 | 31,725 | 1.2848 | 40,962 | 31,999 | 1.2801 |
| All other diseases (Residual) | 237,037 | 238,192 | 0.9952 | 236,614 | 237,421 | 0.9966 | 217,020 | 217,632 | 0.9972 |
| Accidents (unintentional injuries) (V01-X59,Y85-Y86) | 117,075 | 123,706 | 0.9464 | 117,748 | 121,599 | 0.9683 | 114,876 | 117,809 | 0.9751 |
| Transport accidents (V01-V99,Y85) | 45,832 | 46,844 | 0.9784 | 47,601 | 48,412 | 0.9832 | 48,140 | 48,441 | 0.9938 |
| Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1,V82.0-V82.1, V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 43,098 | 43,945 | 0.9807 | 44,572 | 45,316 | 0.9836 | 45,053 | 45,343 | 0.9936 |
| Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2,V80.6-V80.9, V81.2-V81.9,V82.2-V82.9,V87.9,V88.9,V89.1,V89.3,V89.9) | 1,017 | 1,083 | 0.9391 | 1,177 | 1,181 | 0.9966 | 1,251 | 1,241 | 1.0081 |
| Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) | 1,716 | 1,816 | 0.9449 | 1,852 | 1,915 | 0.9671 | 1,837 | 1,857 | 0.9892 |
| Nontransport accidents (W00-X59,Y86) | 71,244 | 76,862 | 0.9269 | 70,147 | 73,187 | 0.9585 | 66,736 | 69,368 | 0.9621 |
| Falls (W00-W19) | 22,736 | 22,631 | 1.0046 | 20,533 | 20,823 | 0.9861 | 19,488 | 19,656 | 0.9915 |
| Accidental discharge of firearms (W32-W34) | 721 | 613 | 1.1762 | 777 | 642 | 1.2103 | 810 | 789 | 1.0266 |
| Accidental drowning and submersion (W65-W74) | 3,237 | 3,443 | 0.9402 | 3,483 | 3,579 | 0.9732 | 3,468 | 3,582 | 0.9682 |
| Accidental exposure to smoke, fire and flames (X00-X09) | 3,276 | 3,286 | 0.9970 | 3,066 | 3,109 | 0.9862 | 3,144 | 3,197 | 0.9834 |
| Accidental poisoning and exposure to noxious substances (X40-X49) | 24,313 | 29,846 | 0.8146 | 24,702 | 27,531 | 0.8972 | 21,416 | 23,618 | 0.9068 |
| Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99,X10-X39,X50-X59,Y86) | 16,961 | 17,043 | 0.9952 | 17,586 | 17,503 | 1.0047 | 18,409 | 18,526 | 0.9937 |

**Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2005-2007**

[For explanation of asterisk preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| Intentional self-harm (suicide) (*U03,X60-X84,Y87.0) | 33,185 | 34,598 | 0.9592 | 32,185 | 33,300 | 0.9665 | 31,769 | 32,637 | 0.9734 |
| Intentional self-harm (suicide) by discharge of firearms (X72-X74) | 17,348 | 17,352 | 0.9998 | 16,650 | 16,883 | 0.9862 | 16,932 | 17,002 | 0.9959 |
| Intentional self-harm (suicide) by other and unspecified means and their sequelae (*U03,X60-X71,X75-X84,Y87.0) | 15,837 | 17,246 | 0.9183 | 15,535 | 16,417 | 0.9463 | 14,838 | 15,635 | 0.9490 |
| Assault (homicide) (*U01-*U02,X85-Y09,Y87.1) | 17,520 | 18,361 | 0.9542 | 18,029 | 18,573 | 0.9707 | 17,694 | 18,124 | 0.9763 |
| Assault (homicide) by discharge of firearms (*U01.4,X93-X95) | 12,129 | 12,632 | 0.9602 | 12,509 | 12,791 | 0.9780 | 12,121 | 12,352 | 0.9813 |
| Assault (homicide) by other and unspecified means and their sequelae (*U01.0-*U01.3,*U01.5-*U01.9,*U02,X85-X92,X96-Y09,Y87.1) | 5,391 | 5,729 | 0.9410 | 5,520 | 5,782 | 0.9547 | 5,573 | 5,772 | 0.9655 |
| Legal intervention (Y35,Y89.0) | 371 | 412 | 0.9005 | 411 | 434 | 0.9470 | 377 | 414 | 0.9106 |
| Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) | 4,888 | 5,381 | 0.9084 | 4,706 | 5,131 | 0.9172 | 4,423 | 4,742 | 0.9327 |
| Discharge of firearms, undetermined intent (Y22-Y24) | 256 | 276 | 0.9275 | 214 | 220 | 0.9727 | 215 | 221 | 0.9729 |
| Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) | 4,632 | 5,105 | 0.9073 | 4,492 | 4,911 | 0.9147 | 4,209 | 4,521 | 0.9310 |
| Operations of war and their sequelae (Y36,Y89.1) | 19 | 21 | 0.9048 | 30 | 28 | 1.0714 | 27 | 27 | 1.0000 |
| Complications of medical and surgical care (Y40-Y84,Y88) | 2,566 | 2,597 | 0.9881 | 2,492 | 2,521 | 0.9885 | 2,630 | 2,653 | 0.9913 |

- Quantity zero.

. . . Category not applicable.

[1]New ICD–10 code J09 (Influenza due to identified avian influenza virus) was added to the category in 2007.

[2]New ICD–10 code U04 (Severe acute respiratory syndrome [SARS]) was added to the category in 2007.

[3]Cause-of-death title was changed in 2007 to reflect the addition of SARS (ICD-10 code U04).

SOURCE: Preliminary and final data from CDC/NCHS, National Vital Statistics System.

**Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2005-2007**

[For explanation of asterisks preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| All causes | 29,241 | 29,138 | 1.0035 | 28,609 | 28,527 | 1.0029 | 28,534 | 28,440 | 1.0033 |
| Certain infectious and parasitic diseases (A00-B99) | 484 | 482 | 1.0041 | 500 | 479 | 1.0438 | 528 | 530 | 0.9962 |
| Certain intestinal infectious diseases (A00-A08) | 20 | 13 | 1.5385 | 15 | 16 | 0.9375 | 8 | 9 | 0.8889 |
| Diarrhea and gastroenteritis of infectious origin (A09) | - | - | ... | 2 | 1 | 2.0000 | 1 | 1 | 1.0000 |
| Tuberculosis (A16-A19) | 2 | 2 | 1.0000 | 1 | - | ... | 2 | 2 | 1.0000 |
| Tetanus (A33,A35) | - | - | ... | - | - | ... | - | - | ... |
| Diphtheria (A36) | - | - | ... | - | - | ... | - | - | ... |
| Whooping cough (A37) | 8 | 8 | 1.0000 | 8 | 8 | 1.0000 | 28 | 28 | 1.0000 |
| Meningococcal infection (A39) | 9 | 11 | 0.8182 | 10 | 11 | 0.9091 | 17 | 17 | 1.0000 |
| Septicemia (A40-A41) | 271 | 283 | 0.9576 | 293 | 269 | 1.0892 | 301 | 302 | 0.9967 |
| Congenital syphilis (A50) | 4 | 5 | 0.8000 | - | - | ... | - | - | ... |
| Gonococcal infection (A54) | - | - | ... | - | - | ... | - | - | ... |
| Viral diseases (A80-B34) | 112 | 115 | 0.9739 | 116 | 120 | 0.9667 | 113 | 119 | 0.9496 |
| Acute poliomyelitis (A80) | - | - | ... | - | - | ... | - | - | ... |
| Varicella (chickenpox) (B01) | - | - | ... | - | - | ... | - | - | ... |
| Measles (B05) | - | - | ... | - | - | ... | - | - | ... |
| Human immunodeficiency virus (HIV) disease (B20-B24) | 7 | 5 | 1.4000 | 7 | 7 | 1.0000 | 2 | 2 | 1.0000 |
| Mumps (B26) | - | - | ... | - | - | ... | - | - | ... |
| Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34) | 105 | 110 | 0.9545 | 109 | 113 | 0.9646 | 111 | 117 | 0.9487 |
| Candidiasis (B37) | 15 | 13 | 1.1538 | 15 | 15 | 1.0000 | 21 | 20 | 1.0500 |
| Malaria (B50-B54) | - | - | ... | - | - | ... | - | - | ... |
| Pneumocystosis (B59) | 1 | 1 | 1.0000 | - | 1 | ... | 2 | 2 | 1.0000 |
| All other and unspecified infectious and parasitic diseases A20-A32, A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99) | 42 | 31 | 1.3548 | 38 | 38 | 1.0000 | 34 | 30 | 1.1333 |
| Neoplasms (C00-D48) | 149 | 131 | 1.1374 | 139 | 141 | 0.9858 | 141 | 134 | 1.0522 |
| Malignant neoplasms (C00-C97) | 92 | 72 | 1.2778 | 77 | 76 | 1.0132 | 78 | 75 | 1.0400 |
| Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85) | 6 | 2 | 3.0000 | 1 | 1 | 1.0000 | 1 | 1 | 1.0000 |
| Leukemia (C91-C95) | 20 | 21 | 0.9524 | 31 | 31 | 1.0000 | 22 | 22 | 1.0000 |
| Other and unspecified malignant neoplasms (C00-C80,C88-C90,C96-C97) | 66 | 49 | 1.3469 | 45 | 44 | 1.0227 | 54 | 52 | 1.0385 |
| In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) | 57 | 59 | 0.9661 | 62 | 65 | 0.9538 | 63 | 59 | 1.0678 |
| Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89) | 108 | 116 | 0.9310 | 104 | 102 | 1.0196 | 94 | 94 | 1.0000 |
| Anemias (D50-D64) | 16 | 17 | 0.9412 | 10 | 11 | 0.9091 | 19 | 19 | 1.0000 |
| Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65-D76) | 72 | 77 | 0.9351 | 63 | 62 | 1.0161 | 60 | 60 | 1.0000 |
| Certain disorders involving the immune mechanism (D80-D89) | 20 | 22 | 0.9091 | 31 | 29 | 1.0690 | 15 | 15 | 1.0000 |
| Endocrine, nutritional and metabolic diseases (E00-E88) | 255 | 252 | 1.0119 | 200 | 207 | 0.9662 | 222 | 226 | 0.9823 |
| Short stature, not elsewhere classified (E34.3) | 3 | 5 | 0.6000 | 8 | 11 | 0.7273 | 8 | 8 | 1.0000 |
| Nutritional deficiencies (E40-E64) | 4 | 7 | 0.5714 | 7 | 9 | 0.7778 | 5 | 5 | 1.0000 |
| Cystic fibrosis (E84) | 11 | 11 | 1.0000 | 10 | 11 | 0.9091 | 5 | 5 | 1.0000 |
| Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87) | 62 | 60 | 1.0333 | 56 | 53 | 1.0566 | 65 | 63 | 1.0317 |
| All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88) | 175 | 169 | 1.0355 | 118 | 123 | 0.9593 | 139 | 145 | 0.9586 |
| Diseases of the nervous system (G00-G98) | 424 | 413 | 1.0266 | 361 | 373 | 0.9678 | 348 | 354 | 0.9831 |
| Meningitis (G00,G03) | 88 | 82 | 1.0732 | 57 | 61 | 0.9344 | 56 | 57 | 0.9825 |
| Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0) | 15 | 13 | 1.1538 | 9 | 8 | 1.1250 | 15 | 15 | 1.0000 |
| Infantile cerebral palsy (G80) | 11 | 11 | 1.0000 | 8 | 7 | 1.1429 | 7 | 8 | 0.8750 |
| Anoxic brain damage, not elsewhere classified (G93.1) | 53 | 64 | 0.8281 | 55 | 60 | 0.9167 | 40 | 42 | 0.9524 |
| Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98) | 257 | 243 | 1.0576 | 232 | 237 | 0.9789 | 229 | 232 | 0.9871 |
| Diseases of the ear and mastoid process (H60-H93) | 3 | 3 | 1.0000 | 2 | 3 | 0.6667 | 7 | 7 | 1.0000 |
| Diseases of the circulatory system (I00-I99) | 612 | 624 | 0.9808 | 539 | 543 | 0.9926 | 523 | 529 | 0.9887 |
| Pulmonary heart disease and diseases of pulmonary circulation (I26-I28) | 96 | 100 | 0.9600 | 81 | 81 | 1.0000 | 98 | 98 | 1.0000 |
| Pericarditis, endocarditis and myocarditis (I30,I33,I40) | 17 | 21 | 0.8095 | 7 | 9 | 0.7778 | 13 | 13 | 1.0000 |
| Cardiomyopathy (I42) | 117 | 120 | 0.9750 | 109 | 115 | 0.9478 | 82 | 82 | 1.0000 |
| Cardiac arrest (I46) | 34 | 29 | 1.1724 | 14 | 15 | 0.9333 | 23 | 24 | 0.9583 |
| Cerebrovascular diseases (I60-I69) | 136 | 132 | 1.0303 | 145 | 142 | 1.0211 | 127 | 126 | 1.0079 |

**Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2005-2007**

[For explanation of asterisks preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51,I70-I99) | 212 | 222 | 0.9550 | 181 | 181 | 1.0000 | 181 | 186 | 0.9731 |
| Diseases of the respiratory system (J00-J98,U04)[1] | 641 | 640 | 1.0016 | 644 | 692 | 0.9306 | 650 | 669 | 0.9716 |
| Acute upper respiratory infections (J00-J06) | 15 | 14 | 1.0714 | 11 | 11 | 1.0000 | 10 | 10 | 1.0000 |
| Influenza and pneumonia (J09-J18)[2] | 218 | 222 | 0.9820 | 244 | 263 | 0.9278 | 255 | 265 | 0.9623 |
| Influenza (J09-J11)[2] | 9 | 13 | 0.6923 | 17 | 18 | 0.9444 | 17 | 19 | 0.8947 |
| Pneumonia (J12-J18) | 209 | 209 | 1.0000 | 228 | 245 | 0.9306 | 238 | 246 | 0.9675 |
| Acute bronchitis and acute bronchiolitis (J20-J21) | 44 | 45 | 0.9778 | 45 | 52 | 0.8654 | 48 | 50 | 0.9600 |
| Bronchitis, chronic and unspecified (J40-J42) | 23 | 24 | 0.9583 | 19 | 19 | 1.0000 | 22 | 25 | 0.8800 |
| Asthma (J45-J46) | 5 | 4 | 1.2500 | 5 | 6 | 0.8333 | 3 | 4 | 0.7500 |
| Pneumonitis due to solids and liquids (J69) | 11 | 10 | 1.1000 | 9 | 11 | 0.8182 | 17 | 17 | 1.0000 |
| Other and unspecified diseases of respiratory system (J22,J30-J39,J43-J44,J47-J68,J70-J98,U04)[1] | 324 | 321 | 1.0093 | 311 | 330 | 0.9424 | 294 | 298 | 0.9866 |
| Diseases of the digestive system (K00-K92) | 650 | 677 | 0.9601 | 588 | 582 | 1.0103 | 630 | 626 | 1.0064 |
| Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50-K55) | 394 | 413 | 0.9540 | 326 | 323 | 1.0093 | 344 | 341 | 1.0088 |
| Hernia of abdominal cavity and intestinal obstruction without hernia (K40-K46,K56) | 68 | 68 | 1.0000 | 70 | 67 | 1.0448 | 76 | 77 | 0.9870 |
| All other and unspecified diseases of digestive system (K00-K28,K30-K38,K57-K92) | 189 | 196 | 0.9643 | 192 | 192 | 1.0000 | 209 | 208 | 1.0048 |
| Diseases of the genitourinary system (N00-N98) | 169 | 169 | 1.0000 | 181 | 180 | 1.0056 | 181 | 180 | 1.0056 |
| Renal failure and other disorders of kidney (N17-N19,N25,N27) | 137 | 138 | 0.9928 | 159 | 154 | 1.0325 | 152 | 151 | 1.0066 |
| Other and unspecified diseases of genitourinary system (N00-N15,N20-N23,N26,N28-N98) | 32 | 31 | 1.0323 | 22 | 26 | 0.8462 | 29 | 29 | 1.0000 |
| Certain conditions originating in the perinatal period (P00-P96) | 14,141 | 14,466 | 0.9775 | 14,223 | 14,321 | 0.9932 | 14,405 | 14,423 | 0.9988 |
| Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00-P04) | 3,280 | 3,274 | 1.0018 | 3,125 | 3,150 | 0.9921 | 3,230 | 3,228 | 1.0006 |
| Newborn affected by maternal hypertensive disorders (P00.0) | 96 | 89 | 1.0787 | 85 | 84 | 1.0119 | 89 | 88 | 1.0114 |
| Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1-P00.9) | 99 | 91 | 1.0879 | 68 | 80 | 0.8500 | 69 | 70 | 0.9857 |
| Newborn affected by maternal complications of pregnancy (P01) | 1,770 | 1,769 | 1.0006 | 1,694 | 1,683 | 1.0065 | 1,786 | 1,776 | 1.0056 |
| Newborn affected by incompetent cervix (P01.0) | 505 | 488 | 1.0348 | 444 | 444 | 1.0000 | 498 | 496 | 1.0040 |
| Newborn affected by premature rupture of membranes (P01.1) | 852 | 851 | 1.0012 | 830 | 824 | 1.0073 | 842 | 837 | 1.0060 |
| Newborn affected by multiple pregnancy (P01.5) | 222 | 238 | 0.9328 | 213 | 214 | 0.9953 | 256 | 255 | 1.0039 |
| Newborn affected by other maternal complications of pregnancy (P01.2-P01.4,P01.6-P01.9) | 191 | 192 | 0.9948 | 207 | 201 | 1.0299 | 189 | 188 | 1.0053 |
| Newborn affected by complications of placenta, cord and membranes (P02) | 1,139 | 1,135 | 1.0035 | 1,123 | 1,140 | 0.9851 | 1,111 | 1,110 | 1.0009 |
| Newborn affected by complications involving placenta (P02.0-P02.3) | 586 | 579 | 1.0121 | 561 | 563 | 0.9964 | 586 | 585 | 1.0017 |
| Newborn affected by complications involving cord (P02.4-P02.6) | 46 | 43 | 1.0698 | 54 | 54 | 1.0000 | 50 | 50 | 1.0000 |
| Newborn affected by chorioamnionitis (P02.7) | 503 | 511 | 0.9843 | 507 | 522 | 0.9713 | 471 | 471 | 1.0000 |
| Newborn affected by other and unspecified abnormalities of membranes (P02.8-P02.9) | 4 | 2 | 2.0000 | 1 | 1 | 1.0000 | 4 | 4 | 1.0000 |
| Newborn affected by other complications of labor and delivery (P03) | 120 | 127 | 0.9449 | 97 | 102 | 0.9510 | 131 | 134 | 0.9776 |
| Newborn affected by noxious influences transmitted via placenta or breast milk (P04) | 55 | 63 | 0.8730 | 58 | 61 | 0.9508 | 44 | 50 | 0.8800 |
| Disorders related to length of gestation and fetal malnutrition (P05-P08) | 4,782 | 4,961 | 0.9639 | 4,943 | 4,940 | 1.0006 | 4,793 | 4,798 | 0.9990 |
| Slow fetal growth and fetal malnutrition (P05) | 105 | 104 | 1.0096 | 102 | 99 | 1.0303 | 84 | 83 | 1.0120 |
| Disorders related to short gestation and low birth weight, not elsewhere classified (P07) | 4,678 | 4,857 | 0.9631 | 4,841 | 4,841 | 1.0000 | 4,709 | 4,714 | 0.9989 |
| Extremely low birth weight or extreme immaturity (P07.0,P07.2) | 3,573 | 3,706 | 0.9641 | 3,678 | 3,683 | 0.9986 | 3,644 | 3,645 | 0.9997 |
| Other low birth weight or preterm (P07.1,P07.3) | 1,104 | 1,151 | 0.9592 | 1,163 | 1,158 | 1.0043 | 1,064 | 1,069 | 0.9953 |
| Disorders related to long gestation and high birth weight (P08) | - | - | ... | - | - | . . . | 1 | 1 | 1.0000 |
| Birth trauma (P10-P15) | 14 | 12 | 1.1667 | 23 | 22 | 1.0455 | 25 | 26 | 0.9615 |
| Intrauterine hypoxia and birth asphyxia (P20-P21) | 349 | 356 | 0.9803 | 344 | 344 | 1.0000 | 522 | 529 | 0.9868 |
| Intrauterine hypoxia (P20) | 108 | 106 | 1.0189 | 109 | 109 | 1.0000 | 116 | 119 | 0.9748 |
| Birth asphyxia (P21) | 241 | 250 | 0.9640 | 236 | 235 | 1.0043 | 406 | 410 | 0.9902 |
| Respiratory distress of newborn (P22) | 735 | 789 | 0.9316 | 801 | 825 | 0.9709 | 861 | 860 | 1.0012 |
| Other respiratory conditions originating in the perinatal period (P23-P28) | 1,077 | 1,117 | 0.9642 | 1,199 | 1,207 | 0.9934 | 1,163 | 1,160 | 1.0026 |
| Congenital pneumonia (P23) | 102 | 103 | 0.9903 | 89 | 104 | 0.8558 | 103 | 104 | 0.9904 |
| Neonatal aspiration syndromes (P24) | 50 | 51 | 0.9804 | 49 | 50 | 0.9800 | 45 | 46 | 0.9783 |

**Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2005-2007**

[For explanation of asterisks preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| Chronic respiratory disease originating in the perinatal period (P27) | 225 | 243 | 0.9259 | 262 | 258 | 1.0155 | 271 | 270 | 1.0037 |
| Atelectasis (P28.0-P28.1) | 354 | 366 | 0.9672 | 396 | 398 | 0.9950 | 379 | 377 | 1.0053 |
| All other respiratory conditions originating in the perinatal period (P28.2-P28.9) | 61 | 69 | 0.8841 | 69 | 69 | 1.0000 | 61 | 61 | 1.0000 |
| Infections specific to the perinatal period (P35-P39) | 1,039 | 1,057 | 0.9830 | 979 | 998 | 0.9810 | 1,033 | 1039 | 0.9942 |
| Bacterial sepsis of newborn (P36) | 790 | 820 | 0.9634 | 786 | 807 | 0.9740 | 834 | 834 | 1.0000 |
| Omphalitis of newborn with or without mild hemorrhage (P38) | 5 | 4 | 1.2500 | - | - | ... | 6 | 6 | 1.0000 |
| All other infections specific to the perinatal period (P35,P37,P39) | 244 | 233 | 1.0472 | 193 | 191 | 1.0105 | 193 | 199 | 0.9698 |
| Hemorrhagic and hematological disorders of newborn (P50-P61) | 723 | 711 | 1.0169 | 708 | 725 | 0.9766 | 782 | 782 | 1.0000 |
| Neonatal hemorrhage (P50-P52,P54) | 614 | 597 | 1.0285 | 598 | 618 | 0.9676 | 664 | 665 | 0.9985 |
| Hemorrhagic disease of newborn (P53) | - | - | ... | 1 | 1 | ... | - | - | ... |
| Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55-P59) | 20 | 15 | 1.3333 | 10 | 13 | 0.7692 | 16 | 16 | 1.0000 |
| Hematological disorders (P60-P61) | 89 | 99 | 0.8990 | 99 | 93 | 1.0645 | 102 | 101 | 1.0099 |
| Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0-P70.2) | 12 | 14 | 0.8571 | 16 | 12 | 1.3333 | 19 | 19 | 1.0000 |
| Necrotizing enterocolitis of newborn (P77) | 529 | 554 | 0.9549 | 528 | 530 | 0.9962 | 549 | 546 | 1.0055 |
| Hydrops fetalis not due to hemolytic disease (P83.2) | 195 | 177 | 1.1017 | 171 | 168 | 1.0179 | 168 | 165 | 1.0182 |
| Other perinatal conditions (P29,P70.3-P76,P78-P81,P83.0-P83.1,P83.3-P96) | 1,405 | 1,444 | 0.9730 | 1,385 | 1,400 | 0.9893 | 1,258 | 1,271 | 0.9898 |
| Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) | 5,769 | 5,785 | 0.9972 | 5,827 | 5,819 | 1.0014 | 5,562 | 5,552 | 1.0018 |
| Anencephaly and similar malformations (Q00) | 306 | 321 | 0.9533 | 332 | 336 | 0.9881 | 313 | 313 | 1.0000 |
| Congenital hydrocephalus (Q03) | 92 | 93 | 0.9892 | 82 | 88 | 0.9318 | 92 | 90 | 1.0222 |
| Spina bifida (Q05) | 21 | 19 | 1.1053 | 24 | 23 | 1.0435 | 22 | 22 | 1.0000 |
| Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07) | 408 | 393 | 1.0382 | 389 | 390 | 0.9974 | 318 | 314 | 1.0127 |
| Congenital malformations of heart (Q20-Q24) | 1,345 | 1,363 | 0.9868 | 1,399 | 1,396 | 1.0021 | 1,378 | 1,377 | 1.0007 |
| Other congenital malformations of circulatory system (Q25-Q28) | 256 | 254 | 1.0079 | 232 | 236 | 0.9831 | 246 | 245 | 1.0041 |
| Congenital malformations of respiratory system (Q30-Q34) | 393 | 410 | 0.9585 | 449 | 437 | 1.0275 | 599 | 598 | 1.0017 |
| Congenital malformations of digestive system (Q35-Q45) | 129 | 132 | 0.9773 | 109 | 108 | 1.0093 | 103 | 105 | 0.9810 |
| Congenital malformations of genitourinary system (Q50-Q64) | 495 | 514 | 0.9630 | 523 | 518 | 1.0097 | 377 | 375 | 1.0053 |
| Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85) | 608 | 623 | 0.9759 | 627 | 619 | 1.0129 | 552 | 558 | 0.9892 |
| Down's syndrome (Q90) | 78 | 82 | 0.9512 | 93 | 97 | 0.9588 | 123 | 123 | 1.0000 |
| Edward's syndrome (Q91.0-Q91.3) | 547 | 525 | 1.0419 | 518 | 509 | 1.0177 | 413 | 405 | 1.0198 |
| Patau's syndrome (Q91.4-Q91.7) | 302 | 295 | 1.0237 | 327 | 322 | 1.0155 | 314 | 310 | 1.0129 |
| Other congenital malformations and deformations (Q10-Q18,Q86-Q89) | 575 | 552 | 1.0417 | 523 | 538 | 0.9721 | 519 | 526 | 0.9867 |
| Other chromosomal abnormalities, not elsewhere classified (Q92-Q99) | 216 | 209 | 1.0335 | 200 | 202 | 0.9901 | 190 | 191 | 0.9948 |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) | 4,162 | 3,617 | 1.1507 | 3,749 | 3,462 | 1.0829 | 3,760 | 3,589 | 1.0476 |
| Sudden infant death syndrome (R95) | 2,118 | 2,453 | 0.8634 | 2,145 | 2,323 | 0.9234 | 2,107 | 2,230 | 0.9448 |
| Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R53,R55-R94,R96-R99) | 2,044 | 1,164 | 1.7560 | 1,604 | 1,139 | 1.4083 | 1,653 | 1,359 | 1.2163 |
| All other diseases (Residual) | 27 | 16 | 1.6875 | 42 | 25 | 1.6800 | 19 | 15 | 1.2667 |

**Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2005-2007**

[For explanation of asterisks preceding cause-of-death codes, see "Technical Notes"]

| Cause of death (Based on the *International Classification of Diseases, Tenth Revision,* Second Edition, 2004) | Preliminary number of deaths 2007 | Final number of deaths 2007 | Ratio of preliminary to final 2007 | Preliminary number of deaths 2006 | Final number of deaths 2006 | Ratio of preliminary to final 2006 | Preliminary number of deaths 2005 | Final number of deaths 2005 | Ratio of preliminary to final 2005 |
|---|---|---|---|---|---|---|---|---|---|
| External causes of mortality (*U01,V01-Y84) | 1,646 | 1,747 | 0.9422 | 1,510 | 1,598 | 0.9449 | 1,463 | 1,512 | 0.9676 |
| Accidents (unintentional injuries) (V01-X59) | 1,238 | 1,285 | 0.9634 | 1,119 | 1,147 | 0.9756 | 1,069 | 1083 | 0.9871 |
| Transport accidents (V01-V99) | 136 | 127 | 1.0709 | 136 | 142 | 0.9577 | 148 | 147 | 1.0068 |
| Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14, V19.0-V19.2,V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1, V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) | 133 | 124 | 1.0726 | 133 | 140 | 0.9500 | 147 | 146 | 1.0068 |
| Other and unspecified transport accidents (V01,V05-V06,V09.1, V09.3-V09.9,V10-V11,V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2,V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9,V88.9, V89.1,V89.3,V89.9,V90-V99) | 4 | 3 | 1.3333 | 2 | 2 | 1.0000 | 1 | 1 | 1.0000 |
| Falls (W00-W19) | 33 | 24 | 1.3750 | 22 | 23 | 0.9565 | 15 | 16 | 0.9375 |
| Accidental discharge of firearms (W32-W34) | 2 | 1 | 2.0000 | - | - | ... | 1 | 1 | 1.0000 |
| Accidental drowning and submersion (W65-W74) | 54 | 57 | 0.9474 | 51 | 51 | 1.0000 | 64 | 64 | 1.0000 |
| Accidental suffocation and strangulation in bed (W75) | 628 | 669 | 0.9387 | 559 | 588 | 0.9507 | 504 | 514 | 0.9805 |
| Other accidental suffocation and strangulation (W76-W77,W81-W84) | 203 | 220 | 0.9227 | 193 | 193 | 1.0000 | 181 | 186 | 0.9731 |
| Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78-W80) | 62 | 70 | 0.8857 | 64 | 62 | 1.0323 | 45 | 48 | 0.9375 |
| Accidents caused by exposure to smoke, fire and flames (X00-X09) | 38 | 38 | 1.0000 | 27 | 27 | 1.0000 | 34 | 34 | 1.0000 |
| Accidental poisoning and exposure to noxious substances (X40-X49) | 16 | 19 | 0.8421 | 15 | 16 | 0.9375 | 20 | 20 | 1.0000 |
| Other and unspecified accidents (W20-W31,W35-W64,W85-W99,X10-X39,X50-X59) | 66 | 60 | 1.1000 | 51 | 45 | 1.1333 | 56 | 53 | 1.0566 |
| Assault (homicide) (*U01,X85-Y09) | 322 | 352 | 0.9148 | 292 | 336 | 0.8690 | 281 | 306 | 0.9183 |
| Assault (homicide) by hanging, strangulation and suffocation (X91) | 32 | 30 | 1.0667 | 23 | 34 | 0.6765 | 24 | 27 | 0.8889 |
| Assault (homicide) by discharge of firearms (*U01.4,X93-X95) | 13 | 15 | 0.8667 | 6 | 6 | 1.0000 | 7 | 6 | 1.1667 |
| Neglect, abandonment and other maltreatment syndromes (Y06-Y07) | 74 | 86 | 0.8605 | 67 | 75 | 0.8933 | 93 | 99 | 0.9394 |
| Assault (homicide) by other and unspecified means (*U01.0-*U01.3, *U01.5-*U01.9,X85-X90,X92,X96-X99,Y00-Y05,Y08-Y09) | 203 | 221 | 0.9186 | 195 | 221 | 0.8824 | 157 | 174 | 0.9023 |
| Complications of medical and surgical care (Y40-Y84) | 24 | 22 | 1.0909 | 21 | 23 | 0.9130 | 20 | 19 | 1.0526 |
| Other external causes and their sequelae (Y10-Y36) | 62 | 88 | 0.7045 | 78 | 92 | 0.8478 | 94 | 104 | 0.9038 |

- Quantity zero.

. . . Category not applicable.

[1]New ICD-10 code U04 (Severe acute respiratory syndrome [SARS], unspecified) was added to the category in 2007.

[2]New ICD-10 code J09 (Influenza due to identified avian influenza virus) was added to the category in 2007.

SOURCE: Preliminary and final data from the CDC/NCHS, National Vital Statistics System.

**Table VII. Relative standard errors for preliminary number of deaths by percent of file completeness**

[Relative standard errors are expressed as a percent of the estimate]

| Estimated number of deaths | Percent of file completeness | | | | | |
|---|---|---|---|---|---|---|
| | 100 | 95 | 90 | 80 | 70 | 60 |
| | Relative standard error (percent) | | | | | |
| 1 | 100.0 | 102.6 | 105.4 | 111.8 | 119.5 | 129.1 |
| 5 | 44.7 | 45.9 | 47.1 | 50.0 | 53.5 | 57.7 |
| 10 | 31.6 | 32.4 | 33.3 | 35.4 | 37.8 | 40.8 |
| 20 | 22.4 | 22.9 | 23.6 | 25.0 | 26.7 | 28.9 |
| 30 | 18.3 | 18.7 | 19.2 | 20.4 | 21.8 | 23.6 |
| 40 | 15.8 | 16.2 | 16.7 | 17.7 | 18.9 | 20.4 |
| 50 | 14.1 | 14.5 | 14.9 | 15.8 | 16.9 | 18.3 |
| 60 | 12.9 | 13.2 | 13.6 | 14.4 | 15.4 | 16.7 |
| 70 | 12.0 | 12.3 | 12.6 | 13.4 | 14.3 | 15.4 |
| 80 | 11.2 | 11.5 | 11.8 | 12.5 | 13.4 | 14.4 |
| 90 | 10.5 | 10.8 | 11.1 | 11.8 | 12.6 | 13.6 |
| 100 | 10.0 | 10.3 | 10.5 | 11.2 | 12.0 | 12.9 |
| 200 | 7.1 | 7.3 | 7.5 | 7.9 | 8.5 | 9.1 |
| 300 | 5.8 | 5.9 | 6.1 | 6.5 | 6.9 | 7.5 |
| 400 | 5.0 | 5.1 | 5.3 | 5.6 | 6.0 | 6.5 |
| 500 | 4.5 | 4.6 | 4.7 | 5.0 | 5.3 | 5.8 |
| 600 | 4.1 | 4.2 | 4.3 | 4.6 | 4.9 | 5.3 |
| 700 | 3.8 | 3.9 | 4.0 | 4.2 | 4.5 | 4.9 |
| 800 | 3.5 | 3.6 | 3.7 | 4.0 | 4.2 | 4.6 |
| 900 | 3.3 | 3.4 | 3.5 | 3.7 | 4.0 | 4.3 |
| 1,000 | 3.2 | 3.2 | 3.3 | 3.5 | 3.8 | 4.1 |
| 2,000 | 2.2 | 2.3 | 2.4 | 2.5 | 2.7 | 2.9 |
| 5,000 | 1.4 | 1.5 | 1.5 | 1.6 | 1.7 | 1.8 |
| 10,000 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 |
| 20,000 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 |
| 50,000 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 |
| 100,000 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 |
| 200,000 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 |
| 500,000 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| 1,000,000 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 2,000,000 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 4,000,000 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |